THE TROPHIC STATUS OF NEARSHORE WATERS IN LAKE SUPERIOR AT THREE ONTARIO WATER SUPPLY INTAKES 1979 - 1984

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Ministry of the Environment
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J. BISHOP, Director
Water Resources Branch

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by

Gordon J. Hopkins

Ontario Ministry of the Environment

Water Resources Branch

Aquatic Ecosystems Section

P.O. Box 213, Rexdale, Ontario, Canada

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PREFACE

Phytoplankton records showing algal density and composition have been maintained at three Ontario waterworks locations on Lake Superior for various periods since 1965. At the request of the Surveillance Workgroup, International Joint Commission, additional chemical parameters have been measured at the Lake Superior locations since 1979 to complement the phytoplankton data. The main goal of this expanded programme was to monitor the nearshore water quality over a long-term (ten years or more) with emphasis on selected trophic state indices. We are currently in year seven of this study at the Lake Superior locations.

SUMMARY

With more than 5 years of weekly data at Thunder Bay and Terrace Bay water works locations it has become apparent that year round sampling facilitated by the use of municipal water supply intakes has provided a very comprehensive data base to assess the nearshore water quality of Lake Superior. Between 1980 and 1984 there has been a significant increase in total P and total N concentrations and a significant decrease in ammonia-N, chloride, conductivity and silica concentrations at Terrace Bay. At Thunder Bay, conductivity was the only parameter to show a significant change as it decreased from 1979 to 1984. There was no significant change in phytoplankton biomass at Thunder Bay or Terrace Bay between 1979 and 1984. Phytoplankton samples collected near Sault Ste. Marie since 1965 have been consistantly low in biomass and of the same magnitude as the concentrations at Thunder Bay and Terrace Bay. Algal levels at all three locations were indicative of oligotrophic conditions reaching maximum levels in late August of most years. This would suggest that algal populations were perhaps more dependent on the light-temperature regime than on the nutrient supply of Lake Superior.

INTRODUCTION

In 1976, the Ontario Ministry of the Environment expanded its provincial phytoplankton monitoring programme at Great Lakes water supply locations to measure several water quality parameters. The main goal of this expanded intake monitoring programme was to assess the nearshore water quality of the Great Lakes over a long term (ten years or more) with emphasis on selected trophic indices such as phytoplankton, phosphorus, nitrogen, silica, chloride, conductivity and chlorophyll. In 1979 the waterworks at Thunder Bay and Terrace Bay on Lake Superior were added to this network. Phytoplankton biomass has been monitored at the wat· · intake for the city of Sault Ste. Marie on the t. Marys river since 1965.

Previous studies by Davis (1964), Schenk and Thompson (1965), Michalski (1975), Nicholls et al (1980), Nicholls (1981) and Hopkins (1983a) have shown the usefulness of waterworks intakes for monitoring changes in the nearshore quality of the Great Lakes. These studies have also indicated that water intakes are a cost-effective means of obtaining frequent nearshore water quality data on a year-round basis regardless of lake weather conditions.

The trophic status of the Great Lakes nearshore waters and the effectiveness of phosphorus removal programmes can be measured directly using phytoplankton biomass in conjunction with chemical analyses. Changes in water quality cannot be measured in terms of P levels alone. Associated increases or declines in algal densities or a shift to or away from certain algal species implicated with water quality problems are needed to show this change.

METHODS

The three waterworks locations (Thunder Bay, Terrace Bay and Sault Ste. Marie) included in this report are indicated in Figure 1. Water supply information is summarized in Table 1. While Thunder Bay City obtains its water from two sources, the data included in this report are from measurements made at the Bare Point location in Thunder Bay, Lake Superior. Terrace Bay municipality obtains its water from facilities operated by the Kimberly-Clark of Canada Limited pulp and paper mill. The Sault Ste. Marie water supply intake is located in the wall of the power dam canal in the St. Marys River. However, during the period 1965 to 1980, phytoplankton samples were analysed for a potential intake location at Gros Cap on Lake Superior for the City of Sault Ste. Marie. A phytoplankton monitoring programme for Lake Superior was implemented at Thunder Bay in 1972, and was introduced at Terrace Bay in 1979 (Hopkins 1983b) when both locations were included in the chemical monitoring programme. Sault Ste. Marie was not included in this chemical monitoring programme and nutrient data for this location have been extrapolated from other sources (M.O.E. unpublished data and Anon. 1977).

Since July, 1979, weekly raw water samples have been collected at the Thunder Bay (Bare Point) and Terrace Bay water treatment plants at a point in the intake system prior to chlorination. One litre samples for phytoplankton biomass estimates were collected and preserved with two mL of Lugol's iodine solution (containing glacial acetic acid) and forwarded to Thunder Bay. There they were concentrated by sedimentation in graduated cylinders prior to shipment to Toronto where analyses of the phytoplankton were completed with inverted microscopes using a modified Utermöhl technique (Hopkins 1983b).

Aliquots of the concentrated samples were settled in 5 mL Utermöhl-type plankton counting chambers, where at least one half of the chamber was scanned at 300x magnification for the larger phytoplankton. One to several radii were examined at 600x for smaller forms which were identified to the genus level. Between 200 and 400 "pieces" (cells, filaments or colonies) were counted and measured for each sample, a number that Lund et al. (1968) considered to provide acceptable precision. Prior to 1974, phytoplankton samples were analysed at 200x magnification using compound microscopes and Sedgwick-Rafter counting chambers. Since January, 1983, aliquots of the weekly phytoplankton samples have been composited to form a new monthly sample. This sample was analysed as described above and the results were reported as a monthly mean biomass value. Phytoplankton biomass at the waterworks locations have been expressed as Areal Standard Units per mL (one A.S.U. is equivalent to 400 square microns of algae) since the algal related problems of filter clogging and taste and odours at water treatment plants have been historically defined in areal units. For comparison with data expressed as cell volume (mm^3/L or mg/m^3) an appropriate conversion for average values was used in the equation (A.S.U./mL=476mm^3/L-55) developed by Nicholls (Nicholls et al. 1980).

Since May, 1979 at Terrace Bay and July, 1979 at Thunder Bay raw water samples for chemical analyses have been collected at the same time and place as the phytoplankton samples. They were placed in 500 mL polystyrene containers and shipped to the Ministry's laboratory in Thunder Bay for analysis of total (unfiltered) P, soluble reactive P, ammonia-N, total Kjeldahl-N, nitrite-N, nitrate-N, chloride, conductivity and silica (unfiltered reactive silicate). One litre samples of raw water stabilized with 1 mL of a 0.5% magnesium carbonate

solution were collected for chlorophyll a and b analyses at the Thunder Bay laboratory. Chemical samples were analysed according to the methods described in Outlines of Analytical Methods, (Anon. 1975), and its subsequent revisions.

RESULTS AND DISCUSSION

Data from the Upper Lakes Reference reports (Anon. 1977) have been extracted for comparison purposes at locations closest to the sites reported in this study. They are Segment A, nearshore and Segment A, open water site, nearest to Sault Ste. Marie; Segment B nearshore site closest to Terrace Bay; and Segment C, nearshore site or Thunder Bay proper (zone B-6) nearest to Bare Point water supply intake. Data collected at Thunder Bay and Terrace Bay water supplies are provided in Appendices 13 and 14, Part A to E which provide summaries of the weekly data, both in tabular and graphical form at each location for the period 1979 to 1984.

Data collected at the three water supplies in this report suggest that there has been a gradual increase in total P over the period 1979 to 1984. Annual mean total P concentrations ranged from 0.003 to 0.006 mg/L at Thunder Bay and 0.004 to 0.008 mg/L at Terrace Bay. Total P values have shown a significant increase at Terrace Bay ($r=0.477; P<0.05$) and at Thunder Bay ($r=0.609; P<0.05$) from 1979 to 1984. However, using data only from March 1981 to the end of 1984 the increase, while positive, is not significant at Thunder Bay (Table 3). A methodology change for total nutrient analyses was incorporated in March, 1981 at the MOE Laboratory, Northwest Region, Thunder Bay which provided a better level of precision (A. Perras, pers. comm). At Terrace Bay the highest concentrations of total P occurred most

frequently in late winter or early spring followed by a summer decline. With the exception of 1980 highest total P concentrations at Thunder Bay appeared to occur in late summer.

In 1973, seasonal mean total P concentrations were 0.016, 0.007 and 0.004 mg/L in the nearshore zones at Thunder Bay, Terrace Bay and Sault Ste. Marie, respectively (Table 2). It has been suggested (Weiler, 1978) however, that the analytical data for total P were high by ~0.0015 mg/L in 1973. At Sault Ste. Marie, seasonal samples were collected for nutrient analyses at Station 039 in Lake Superior at the mouth of the St. Marys river from 1981 to 1984. Daily mean total P concentrations are presented in Table 4 for the sampling period May to November of each year. Highest concentrations occurred in the fall of 1982 and the spring of 1983 and 1984 (maximum of 0.058 mg/L May 24, 1983). Seasonal mean total P concentration at Station 039 ranged from 0.008 to 0.013 mg/L (Table 4). This would suggest that there has been an increase at Terrace Bay and the Sault Ste. Marie locations in the past 10 to 12 years while there has been an improvement (lowering) of total P concentrations at the Bare Point location in Thunder Bay.

Nitrate-N has shown a non-significant increase at both Thunder Bay and Terrace Bay since 1979, whereas ammonia-N has decreased significantly ($r=0.312$; $P<0.05$) only at Terrace Bay. Total Kjeldahl-N has increased at both locations since 1979 but has shown a significant increase ($r=0.462$; $P<0.05$) at Terrace Bay since 1981. Annual mean concentrations of total Kjeldahl-nitrogen at Thunder Bay ranged from 0.220 to 0.410 mg/L and from 0.220 to 0.820 mg/L at Terrace Bay. 1973 concentrations of total N were 0.274, 0.317 and 0.307 at Thunder Bay, Terrace Bay, and Sault Ste. Marie locations (Table 2), respectively.

Historically, nitrogen levels have increased with time throughout the Great Lakes (Anon 1977). This increase has been marginal at the Lake Superior locations monitored for this study. There is an observable seasonal cyclic pattern present with an annual minimum occurring in mid winter of each year (Appendix 13 and 14, Part D).

Chloride is a non-reactive conservative substance which reflects the influence of human activity on a water basin. 1973 chloride levels were 1.24, 1.15 and 1.13 mg/L at Thunder Bay, Terrace Bay and Sault Ste. Marie (Table 2). Chloride concentrations ranged from 2.1 to 5.0 mg/L at Thunder Bay; and from 3.0 to 2.0 mg/L at Terrace Bay from 1980 to 1984. 1979 data were excluded as there was an analytical change in November, 1979. (A. Perras pers. comm.). There was, however, a significant decrease ($r=0.394; P<0.05$) in chloride at Terrace Bay between 1980 and 1984. Conductivity decreased significantly at Thunder Bay and Terrace Bay between 1980 and 1984. Annual mean conductivity readings ranged from 101 to 104 µS/cm at Thunder Bay and 98 to 101 µS/cm at Terrace Bay between 1979 and 1984. Conductivity measurements made during the 1973 surveys (Anon. 1977) indicated mean conductivity levels of 99, 95 and 96 µS/cm at Thunder Bay, Terrace Bay and Sault Ste. Marie nearshore zones respectively.

Silicon concentrations (measured as the soluble reactive silicate ion - mg Si/L) have shown a decline at both Thunder Bay and Terrace Bay since 1979. The decrease was statistically significant at Terrace Bay ($r=0.455; P<0.05$). Annual mean concentrations ranged from 1.12 to 1.19 mg/L at Thunder Bay and from 1.11 to 1.24 mg/L at Terrace Bay between 1979 and 1984. Reactive silicate levels (measured as mg SiO_2/L) in 1973 were 2.3, 2.2 and 2.2 mg/L at Thunder Bay, Terrace Bay and Sault Ste. Marie respectively.

The source of silicates in Lake Superior is the geological deposits in the drainage basin and natural inputs from Lake Superior. Silicon is an essential nutrient for diatoms, one of the most common algae in Lake Superior. The decrease in silica is consistent with observed increases in total P and decreases in ammonia, (i.e. more utilization by algae such as diatoms but not enough to be seen in algal analyses).

Phytoplankton records go back to 1965 at Sault Ste. Marie, 1972 at Thunder Bay and 1979 at Terrace Bay. (Table 5). At Thunder Bay there were ten years of data available between 1972 and 1984. No samples were collected in 1975, 1976 and 1977. The ten year mean value for Thunder Bay was 138 A.S.U./mL. There was no statistically significant change in phytoplankton biomass at either Thunder Bay or Terrace Bay between 1979 and 1984. At the Sault Ste. Marie water supply intake (St. Marys River) the eighteen year mean (1965 - 1982) was 103 A.S.U./mL but did not show any significant change during that time. Samples collected at Gros Cap, Lake Superior between 1965 and 1973 provided very similar results with a nine year mean of 105 A.S.U./mL.

Seasonally, the algal populations at Thunder Bay and Terrace Bay reached a maximum in August of most years. For the Gros Cap and the St. Marys River location at Sault Ste. Marie, a spring maximum occurred most frequently in May - June of each year with another fall maximum occurring in late October or early November of some years. These findings are more typical of open lake conditions where summer depletion of nutrients after thermal stratification precludes the development of higher summer biomass of phytoplankton.

The number of taxa identified and the percent distribution by taxonomic group for all three locations on Lake Superior are provided in Table 6. Of 178 taxa identified the Chlorophyceae (34%) and the Bacillariophyceae (25%) were the dominant groups followed by the Chrysophyceae (21%) and the Cyanophyceae (11%). Munawar (1978) identified 285 taxa in a "Whole Lake" survey conducted in 1973. The percent composition by algal group was 31%, 22% and 20% for Bacillariophyceae, Chlorophyceae and Chrysophyceae respectively. He also reported peak densities in the month of August. It would appear that the seasonal succession of algae is controlled by the light-temperature regime of Lake Superior, as nutrient concentrations, which are much lower than in the other Great Lakes, produce a much lower algal biomass. In Lake Erie where there is an abundant supply of nutrients (Dobson et al. 1974) there is a correspondingly high biomass (Munawar, 1980).

Time trend analyses (linear regressions) of the two dominant groups of algae revealed no significant trends in the annual mean, spring-early summer mean or late summer-fall mean at Thunder Bay. At Terrace Bay only the late summer-fall mean Bacillariophyceae biomass showed a significant decrease ($r = 0.90$; $P < 0.05$) with time. A comparison of silica to diatoms showed no annual or seasonal relationships at either Thunder Bay or Terrace Bay. Munawar (1978) provided a comparison of biomass in Lake Superior to other Great Lakes locations which showed its extreme oligotrophic nature. Data collected at municipal water supply intakes provide further evidence of the oligotrophic nature of Lake Superior compared to other waterworks locations on the Great Lakes (Table 7).

Using the formula of Nicholls described in the "Methods" section, the annual mean phytoplankton biomass concentrations can be converted from A.S.U./mL to mm^3/L. Phytoplankton biomass (presented in Table 5 as A.S.U./mL) attained concentrations of 0.405, 0.231 and 0.332 mm^3/L at Thunder Bay, Terrace Bay and Sault Ste. Marie, respectively. Munawar (1978) reported a mean biomass of 0.13 mm^3/L for the whole lake in 1973. Nearshore locations ranged somewhat higher.

Any future changes in the nearshore water quality of Lake Superior will become more apparent with the continuation of this monitoring programme facilitated by the use of municipal water supply intake data.

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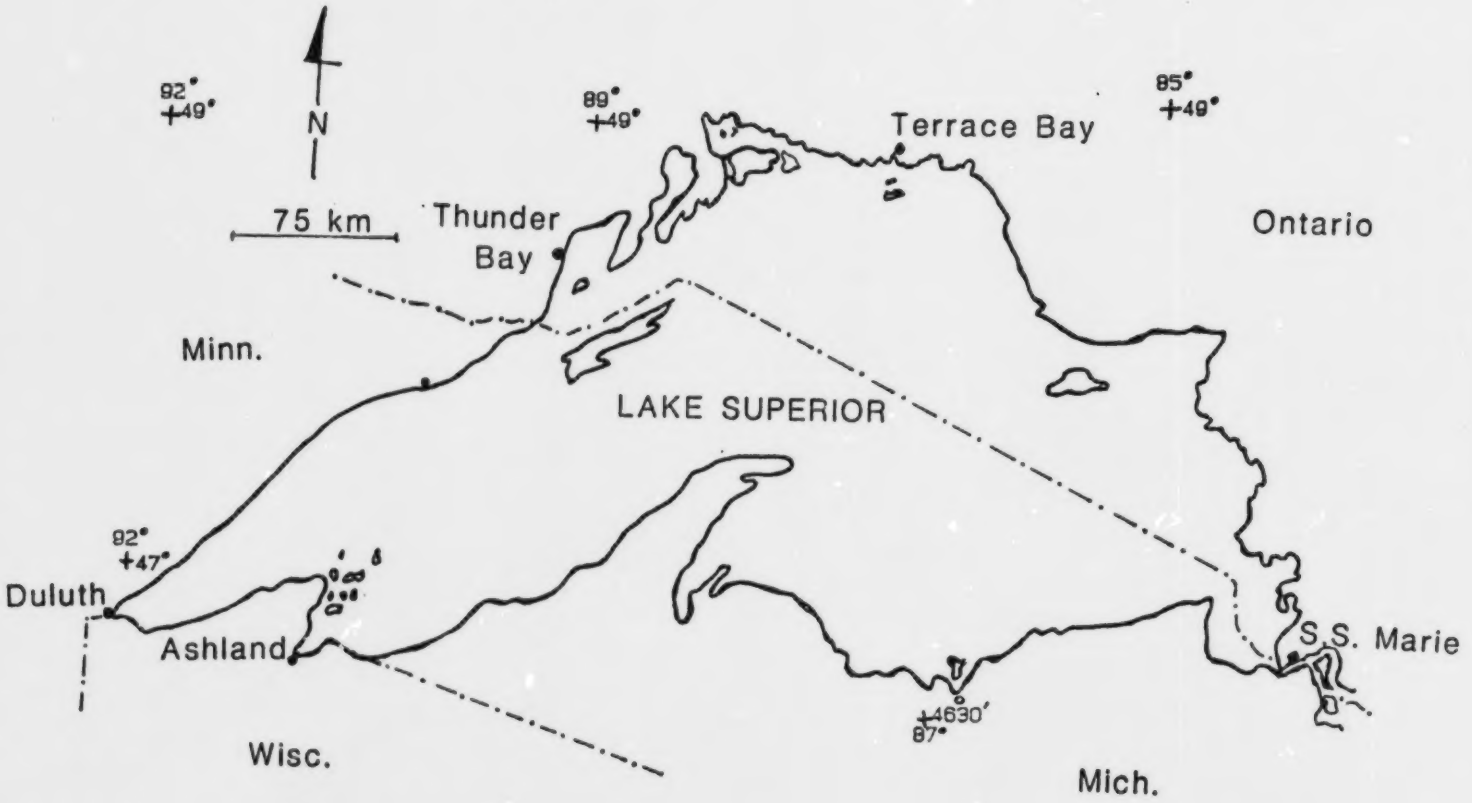

Figure 1: Locationsof three Ontario municipal water supplies, Lake Superior

TABLE 1: Lake Superior Water Supply Intake Data

Location	Length (m)	Depth (m)	Diameter (mm)
Thunder Bay (Bare Point)	710	10.1	2 lines x 610
Terrace Bay	488	11.0	1,220
Sault Ste. Marie St. Marys River	in power dam wall	2.7	610
Gros Cap. (test line) Lake Superior	427	-	19

TABLE 2: Nutrient Data, 1973 Seasonal Means - Upper Lakes Ref. Group; Vol. III - Nearshore Data.

Parameter	Units	Thunder Bay	Terrace Bay	Sault Ste. Marie
Total P[1]	mg/L	.008 .016[2]	.007	.004
Total N[1]	mg/L	.274 .339[2]	.317	.307
Chloride[3]	mg/L	1.24	1.15	1.13
Conductivity[1]	µs/cm	99	95	96
Silica[1]	mg/L	2.3	2.2	2.2
Chlorophyll a[1]	µg/L	0.9	0.8	0.6
Phytoplankton[4]	ASU/mL	211	-	72

[1]Lake Superior nearshore zones; (Vol. III Part A; ch. 4.1)

[2]Thunder Bay harbour zones; (Vol. III Part A ch. 4.2).

[3]Lake Superior open water segments; (Vol. III Part B; ch. 5.3)

[4]ULR Group; Phytoplankton Conditions - (Michalski, 1975)

TABLE 3: Parameters Tested in a time trend analysis (linear regression) at Lake Superior Waterwork locations 1980 - 1984.

Parameter	Thunder Bay N[1]	Thunder Bay S.D.[2]	Terrace Bay N	Terrace Bay S.D.
Total P	44[3]	(-)[2]	43[3]	S.D. (increase)
NH_3 - N	59	(-)	58	S.D. (decrease)
Nitrate - N	59	(-)	58	-
T.K. - N	47[3]	(-)	47[3]	S.D. (increase)
Chloride	59	(-)	58	S.D. (decrease)
Conductivity	59	S.D. (decrease)	58	S.D. (decrease)
Silica	59	(-)	58	S.D. (decrease)
Chlorophyll. a	58	(-)	55	(-)
Phytoplankton	58	(-)	56	(-)
Total P vs. Phytoplankton	57	(-)	54	(-)
Silica vs. Phytoplankton	57	(-)	54	(-)
Chloride vs. Conductivity	59	(-)	58	S.D.
Silica vs. Diatoms	60	(-)	57	(-)

[1]N = #of pieces of monthly mean data January, 1980 - December, 1984

[2]No significant difference in variables tested is (-); S.D. = slope significantly different from zero.

[3]Monthly mean data March, 1981 - December, 1984, only

TABLE 4: Total P Concentrations (mg/L) - at Station 039, St. Marys River, Sault Ste. Marie 1981 - 1984

1981		1982		1983		1984	
May 15	.003	May 12	.007	May 16	.001		-
	-	17	.011		-		-
May 24	.005	24	.004	24	.058		-
	-	30	.004	31	.011		-
June 9	.010	June 7	.012	June 8	.011		-
14	.001	15	.009	19	.021	June 18	.046
21	.004	20	.003		-		-
	-	27	.020		-	27	.005
July 5	.024	July 6	-	July 6	.005	July 3	.003
8	.006	13	.001	11	.005	11	.003
	-	19	.005	18	.016	18	.001
26	.007	26	.003	25	.005	24	.017
Aug. 1	.005	Aug. 2	-	Aug. 2	.008	Aug. 1	.011
11	.006	11	.005	9	.015	8	.010
19	.007	16	.003	16	-	15	.008
25	.006	23	.004	24	-	22	.017
	-	30	.005	30	.009	29	.022
Sept.1	.004		-		-	Sept. 5	.013
6	.006	Sept. 7	.001	Sept.19	.004	11	.007
14	.015	13	.011		-	17	.008
20	.017	21	.001		-		-
27	.006	27	.004	27	.014		-
Oct. 4	.008	Oct. 3	.003		-	Oct. 3	.011
11	.020	12	.026	Oct. 12	.010	9	.006
18	.012		-	18	.006		-
25	.005		-		-		-
Nov. 1	.005		-	Nov. 2	.015		-
8	.006	Nov. 7	.013		-	Nov. 7	.007
15	.005	14	.008		-	12	.004
	-	21	.037		-	21	.004
	-	28	.009		-		-
$\bar{x}$ = .00804		$\bar{x}$ = .00836		$\bar{x}$ = .01259		$\bar{x}$ = .01068	
S.D. = .00562		S.D. = .00843		S.D. = .01282		S.D. = .01016	

TABLE 5: Summary of phytoplankton data collected from Thunder Bay, Terrace Bay and Sault Ste. Marie water supply intakes, Lake Superior. All values expressed as Areal Standard Units per mL. (A.S.U./mL).

	Thunder Bay			Terrace Bay			Sault Ste. Marie		
Year	Max.	Mean	# of Samples	Max.	Mean	# of Samples	Max.	Mean	# of Samples
1965							380	108	11
1966							283	104	13
1967							1360	237	23
1968							276	102	21
1969							1017	135	26
1970							201	94	24
1971							159	56	21
1972	572	229	27				134	58	19
1973	560	211	44				133	63	18
1974	351	169	3				219	110	13
1975							124	66	10
1976							291	89	17
1977							202	91	16
1978	221	129	9				331	104	13
1979	28	106	37	138	52	26	120	78	8
1980	73	76	38	115	44	28	242	104	13
1981	619	139	52	541	71	50	234	89	15
1982	171	69	49	93	35	47	431	136	22
1983	283	134	49	131	70	51	-	-	-
1984	445	117	14*	134	57	12*	-	-	-
Grand Mean(ASU/mL		138			55			103	
(									
(									
(mm³/L		=.405mm³/L			.231mm³/L			.332mm³/L	

*Weekly sample composited to provide a monthly mean count whenever 3 or more samples were collected.

TABLE 6: Number of taxa identified and percent distribution by taxonomic group in Lake Superior 1965 - 1983.

Group	Number of taxa	(m)	% of Total	(m)
Cyanophyceae	20	(35)	11.2	(12)
Dinophyceae	7	(18)	3.9	(6)
Cryptophyceae	3	(24)	1.7	(8)
Chrysophyceae	38	(58)	21.3	(20)
Euglenophyceae	4	(-)	2.2	(-)
Chlorophyceae	61	(62)	34.3	(22)
Bacillariophyceae	45	(88)	25.3	(31)
Total	178	(285)		

(m) numbers in brackets are from Munawar (1978) and are generally higher because his analyses included identifications to the species level while our identifications generally did not go beyond the genus level.

TABLE 7: Mean and range of phytoplankton biomass observed at various Great Lakes water supply intakes (A.S.U./mL)

	Phytoplankton Biomass A.S.U./mL			
Lake	Date	Mean	Range	Reference
Lake Superior (3 locations)	1965 - 1983	99	44-237	Present Study
Lake Huron (3 locations)	1965 - 1984	592	211-1799	Hopkins, 1983a
Lake Erie (Western Basin - Union)	1967 - 1984	3478	1067-5368	Hopkins, 1983b
Lake Erie Eastern Basin Dunnville	1969 - 1984	851	257-1420	Hopkins, 1983b
Lake Ontario South Peel	1970 - 1984	277	207-377	Hopkins, 1983b
St. Lawrence River Brockville	1967 - 1984	383	193-582	Nicholls, 1981

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* in 5 parts (A, B, C, D and E)

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Part B (Append. 13 and 14): Short annual summary of weekly raw water data for twelve parameters at each water treatment plant, 1979 - 1984.

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Part D (Append. 13 and 14): Graphical presentation of data as monthly means (± 1 S.D.) for five parameters at each location, 1979 - 1984.

Part E (Append. 13 and 14): Graphical presentation of data as monthly means (± 1 S.D.) for three parameters at each location, 1979 - 1984

Appendix No. 13:

TERRACE BAY W.W.

for Report

on

THE TROPHIC STATUS OF NEARSHORE WATERS

IN LAKE SUPERIOR AT THREE ONTARIO WATER SUPPLY INTAKES

1979 - 1984

Plant # 13 - TERRACE BAY W.W. 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
MAY 28	-	-	-	-	-	-	4.0	100	1.40	2.6	2.0	25
JUN 4	0.000	0.002	0.010	0.110	0.001	0.310	1.0	98	1.20	0.6	0.8	30
JUN 11	0.009	0.000	0.000	0.140	0.001	0.290	2.0	95	1.20	-	-	33
JUN 18	0.005	0.001	0.000	0.130	0.001	0.290	3.0	98	-	0.9	1.3	40
JUN 25	0.005	0.010	0.000	0.140	0.001	0.300	2.0	98	1.20	0.8	1.2	48
JUL 3	0.007	0.002	0.010	0.180	0.001	0.290	3.0	101	1.20	1.1	1.1	32
JUL 9	0.007	0.001	0.010	0.160	0.001	0.270	2.0	102	1.10	1.5	2.1	66
JUL 16	0.005	0.002	0.010	0.100	0.000	0.280	2.0	98	1.10	1.2	2.0	78
JUL 23	0.001	0.000	0.020	0.170	0.001	0.230	2.0	101	1.10	0.7	0.9	113
JUL 30	0.006	0.001	0.060	0.350	0.002	0.270	3.0	100	1.10	1.0	1.8	138
AUG 7	0.004	0.001	0.040	0.320	0.001	0.280	3.0	102	1.10	0.7	1.3	84
AUG 13	0.004	0.003	0.030	0.220	0.000	0.280	3.0	100	1.10	1.0	1.4	129
AUG 20	-	-	-	-	-	-	-	-	-	-	-	-
AUG 27	-	-	-	-	-	-	-	-	-	-	-	-
SEP 4	0.009	0.001	0.030	0.260	0.001	0.280	2.0	102	1.10	-	-	35
SEP 10	0.000	0.000	0.050	0.220	0.000	0.270	2.0	99	1.10	-	-	35
SEP 17	0.005	0.000	0.010	0.190	0.002	0.270	2.0	102	1.10	-	-	55
SEP 24	0.002	0.000	0.020	0.130	0.002	0.260	2.0	100	1.10	-	-	69
OCT 1	0.003	0.005	0.010	0.090	0.001	0.290	2.0	98	1.10	-	-	43
OCT 9	-	-	-	-	-	-	-	-	-	-	-	27
OCT 15	0.021	0.018	0.030	0.090	0.001	0.290	3.0	98	1.10	-	-	-
OCT 29	-	-	-	-	-	-	-	-	-	-	-	27
NOV 5	-	-	-	-	-	-	-	-	-	-	-	12
NOV 13	0.013	0.001	0.010	0.270	0.001	0.310	2.0	100	1.10	-	-	38
NOV 19	0.006	0.001	0.020	0.210	0.000	0.300	1.0	99	1.10	-	-	24
NOV 26	0.000	0.001	0.010	0.110	0.001	0.300	3.0	99	1.10	-	-	34
DEC 3	0.006	0.002	0.000	0.150	0.000	0.310	1.0	101	1.20	-	-	62
DEC 10	0.008	0.000	0.030	0.210	0.000	0.310	2.0	98	1.10	-	-	24
DEC 17	0.010	0.001	0.010	0.170	0.000	0.330	2.0	98	1.20	-	-	46
DEC 24	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.000	0.000	0.000	0.090	0.000	0.230	1.0	96	1.10	0.6	0.8	12
max.	0.021	0.018	0.060	0.350	0.002	0.330	4.0	102	1.40	2.6	2.1	138
mean	0.006	0.002	0.018	0.179	0.001	0.287	2.3	100	1.14	1.1	1.4	52
s.dev.	0.005	0.004	0.016	0.071	0.001	0.021	0.7	2	0.07	0.6	0.5	33
#samples	23	23	23	23	23	23	24	24	23	11	11	26

Plant # 13 - TERRACE BAY W.W. 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 7	-	-	-	-	-	-	-	-	-	-	-	-
JAN 14	-	-	-	-	-	-	-	-	-	-	-	-
JAN 22	0.000	0.003	0.020	0.170	0.000	0.330	1.5	99	1.20	-	-	21
JAN 28	0.000	0,002	0.020	0.150	0.000	0.320	1.6	100	1.30	-	-	28
FEB 4	0.004	0.001	0.010	0.160	0.001	0.320	1.5	100	1.20	-	-	53
FEB 11	0.000	0.001	0.010	0.220	0.000	0.320	1.4	101	1.20	-	-	85
FEB 18	0.015	0.000	0.040	0.430	0.000	0.320	2.0	104	1.20	1.3	-	115
FEB 25	0.006	0.008	0.030	0.210	0.001	0.320	2.3	101	1.20	-	-	9
MAR 3	0.004	0.000	0.030	0.270	0.000	0.320	1.7	100	1.20	0.7	-	37
MAR 10	0.003	0.000	0.050	0.350	0.000	0.330	2.1	104	1.10	-	-	64
MAR 17	-	-	-	-	-	-	-	-	-	-	-	-
MAR 24	0.006	0.000	0.040	0.210	0.000	0.320	1.7	99	1.20	-	-	22
MAR 31	0.004	0.001	0.010	0.050	0.000	0.320	1.9	98	1.20	-	-	19
APR 7	0.006	0.003	0.030	0.190	0.000	0.310	1.9	99	1.20	-	-	39
APR 14	0.016	0.003	0.060	0.250	0.000	0.310	2.0	98	1.20	-	-	26
APR 21	0.003	0.003	0.050	0.220	0.000	0.310	2.1	100	1.20	-	-	18
APR 28	0.000	0.001	0.040	0.170	0.001	0.320	1.9	99	1.20	-	-	58
MAY 6	0.003	0.000	0.000	0.120	0.003	0.270	1.7	102	1.30	-	-	-
MAY 12	0.000	0.000	0.000	0.100	0.002	0.300	1.7	101	1.20	-	-	-
MAY 20	-	-	-	-	-	-	-	-	-	-	-	-
MAY 26	-	-	-	-	-	-	-	-	-	-	-	-
JUN 2	-	-	-	-	-	-	-	-	-	-	-	-
JUN 9	-	-	-	-	-	-	-	-	-	-	-	-
JUN 17	-	-	-	-	-	-	-	-	-	0.3	-	-
JUN 23	0.002	0.000	0.000	0.080	0.000	0.290	1.4	100	1.10	1.2	-	-
JUN 30	-	-	-	-	-	-	-	-	-	0.0	-	-
JUL 7	0.000	0.000	-	-	0.002	0.290	3.0	140	1.20	0.0	-	-
JUL 16	0.000	0.000	0.000	0.140	0.001	0.290	1.9	100	1.20	-	-	-
JUL 21	0.001	0.000	0.010	0.040	0.000	0.280	1.8	102	1.20	-	-	-
JUL 28	0.000	0.000	0.010	0.100	0.001	0.280	1.8	117	1.20	-	-	-
AUG 5	0.002	0.000	0.000	0.090	0.001	0.260	1.4	97	1.10	-	-	-
AUG 11	0.004	0.000	0.020	0.110	0.002	0.260	1.9	97	1.10	1.3	-	-
AUG 18	0.004	0.000	0.000	0.120	0.002	0.250	1.6	96	1.10	1.0	-	-
AUG 25	0.003	0.003	0.020	0.130	0.002	0.250	1.4	98	1.10	0.7	-	-
SEP 2	0.013	0.002	0.010	0.130	0.002	0.230	1.6	100	1.10	-	-	-
SEP 8	-	-	-	-	-	-	-	-	-	-	-	-
SEP 15	-	-	-	-	-	-	-	-	-	0.7	-	-
SEP 22	0.003	0.003	0.010	0.110	0.000	0.260	1.3	98	1.10	0.5	-	114
SEP 29	0.003	0.000	0.000	0.110	0.001	0.260	1.5	96	1.10	1.0	-	73
OCT 6	0.000	0.000	0.010	0.090	0.002	0.260	1.3	99	1.10	-	-	83
OCT 14	-	-	-	-	-	-	-	-	-	-	-	-
OCT 20	0.005	0.000	0.000	0.100	0.004	0.280	1.3	98	1.10	0.5	-	45
OCT 27	0.004	0.001	0.000	0.190	0.002	0.290	1.3	98	1.20	0.6	-	30
NOV 3	0.004	0.001	0.000	0.110	0.000	0.310	1.4	98	1.20	-	-	38
NOV 10	0.005	0.000	0.010	0.050	0.000	0.310	1.5	98	1.20	1.3	-	55
NOV 17	0.007	0.000	0.000	0.150	0.000	0.310	1.4	96	1.20	0.4	-	26
NOV 24	0.000	0.000	0.000	0.100	0.000	0.310	1.4	99	1.20	0.8	-	39
DEC 1	0.000	0.000	0.000	0.150	0.001	0.290	1.4	98	1.20	0.6	-	40
DEC 8	0.000	0.000	0.000	0.090	0.000	0.290	1.4	98	1.20	-	-	23
DEC 15	0.007	0.000	0.010	0.090	0.000	0.310	1.3	100	1.20	0.5	-	18
DEC 22	0.002	0.000	0.000	0.080	0.000	0.320	1.3	99	1.20	0.5	-	23
DEC 29	0.005	0.000	0.000	0.080	0.000	0.320	1.8	100	1.20	0.7	-	25
min.	0.000	0.000	0.000	0.040	0.000	0.230	1.3	96	1.10	0.0	-	9
max.	0.016	0.008	0.060	0.430	0.004	0.330	3.0	140	1.30	1.3	-	115
mean	0.004	0.001	0.014	0.146	0.001	0.296	1.7	101	1.18	0.7	-	44
S.dev.	0.004	0.002	0.017	0.080	0.001	0.026	0.3	7	0.05	0.4	-	28

13-A Cont'd.

Plant # 13 - TERRACE BAY W.W. 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 5	0.002	0.001	0.000	0.070	0.000	0.320	1.8	100	1.20	-	-	23
JAN 12	0.002	0.000	0.000	0.120	0.000	0.320	1.5	98	1.20	-	-	16
JAN 19	0.005	0.000	0.010	0.140	0.001	0.330	1.5	100	1.20	-	-	15
JAN 26	0.007	0.000	0.000	0.050	0.000	0.310	1.5	100	1.20	0.5	-	26
FEB 2	0.003	0.003	0.000	0.060	0.001	0.310	1.5	100	1.20	-	-	36
FEB 9	0.000	0.000	0.000	0.160	0.000	0.320	1.7	103	1.20	0.4	-	46
FEB 16	0.002	0.000	0.000	0.090	0.000	0.320	1.8	101	1.20	0.7	-	72
FEB 23	0.005	0.000	0.030	0.130	0.001	0.320	1.8	100	1.20	0.6	-	45
MAR 2	0.003	0.000	0.010	0.090	0.000	0.320	1.4	98	1.20	-	-	40
MAR 9	0.000	0.000	0.000	0.110	0.000	0.320	1.8	101	1.20	0.3	-	54
MAR 16	-	-	-	-	-	-	-	-	-	0.5	-	56
MAR 23	0.002	0.000	0.000	0.170	0.000	0.300	1.5	100	1.20	0.4	-	25
MAR 30	0.004	0.001	0.020	0.130	0.001	0.310	1.6	98	1.20	-	-	31
APR 6	0.002	0.001	0.020	0.120	0.000	0.320	1.4	100	1.20	-	-	26
APR 13	0.000	0.000	0.000	0.160	0.000	0.320	1.3	99	1.20	-	-	37
APR 20	0.003	0.000	0.020	0.130	0.000	0.310	1.4	99	1.20	-	-	31
APR 27	0.002	0.001	0.010	0.110	0.001	0.310	1.4	100	1.20	-	-	24
MAY 4	0.000	0.000	0.010	0.010	0.001	0.300	1.4	96	1.20	-	-	77
MAY 11	0.001	0.000	0.000	0.120	0.001	0.300	1.3	91	1.20	-	-	46
MAY 19	0.004	0.002	0.000	0.080	0.002	0.300	1.3	100	1.20	0.4	-	70
MAY 25	0.003	0.002	0.000	0.100	0.001	0.310	1.3	99	1.20	0.6	-	70
JUN 1	0.002	0.001	0.000	0.120	0.000	0.310	1.4	100	1.20	-	-	57
JUN 8	0.004	0.003	0.000	0.100	0.001	0.310	1.6	102	1.20	-	-	109
JUN 15	0.004	0.003	0.000	0.090	0.001	0.310	1.3	97	1.10	0.6	-	92
JUN 22	0.002	0.002	0.000	0.140	0.002	0.300	1.5	127	1.40	0.4	-	73
JUN 29	0.005	0.002	0.020	0.100	0.001	0.300	1.5	102	1.20	0.8	-	103
JUL 6	0.004	0.003	0.000	0.140	0.001	0.300	2.1	104	1.20	0.3	-	84
JUL 13	0.004	0.003	0.000	0.150	0.001	0.290	1.5	102	1.20	0.4	-	127
JUL 20	0.003	0.002	0.000	0.120	0.002	0.290	1.5	101	1.10	0.5	-	99
JUL 29	0.003	0.003	0.010	0.110	0.001	0.300	1.5	102	1.20	-	-	101
AUG 4	0.003	0.002	0.000	0.120	0.002	0.270	1.2	102	1.20	-	-	177
AUG 10	0.004	0.003	0.020	0.150	0.002	0.280	1.4	98	1.50	1.0	0.2	541
AUG 17	-	-	-	-	-	-	-	-	-	1.0	0.2	123
AUG 24	0.004	0.002	0.000	0.220	0.002	0.230	1.9	104	1.30	-	-	172
AUG 31	0.003	0.002	0.020	0.120	0.002	0.240	1.6	100	1.20	-	-	104
SEP 9	-	-	-	-	-	-	-	-	-	-	-	-
SEP 14	0.003	0.001	0.010	0.120	0.001	0.270	1.6	100	1.30	0.6	-	49
SEP 21	0.006	0.001	0.030	0.120	0.002	0.280	1.5	103	-	-	-	65
SEP 28	0.003	0.001	0.000	0.080	0.003	0.310	1.3	101	1.40	-	-	15
OCT 5	0.003	0.001	0.020	0.070	0.004	0.300	1.3	100	1.10	0.6	-	82
OCT 12	0.002	0.001	0.000	0.080	0.003	0.290	1.4	100	1.10	0.5	-	69
OCT 19	0.003	0.001	0.000	0.110	0.002	0.300	1.3	101	1.20	0.6	-	48
OCT 28	0.005	0.002	0.000	0.060	0.000	0.300	1.3	100	1.60	0.3	-	51
NOV 2	-	-	-	-	-	-	-	-	-	-	-	-
NOV 9	0.003	0.001	0.000	0.100	0.005	0.290	1.5	101	1.20	0.4	-	27
NOV 16	0.003	0.002	0.030	0.080	0.000	0.290	1.4	99	1.20	0.4	-	33
NOV 23	0.005	0.001	0.030	0.160	0.004	0.310	1.6	98	1.20	-	-	29
NOV 30	0.004	0.004	0.000	0.100	0.000	0.330	1.4	120	1.20	0.5	-	38
DEC 7	0.005	0.005	0.000	0.070	0.000	0.330	1.3	101	1.20	0.6	-	41
DEC 14	0.004	0.001	0.000	0.090	0.000	0.330	1.4	98	1.30	0.5	-	39
DEC 21	0.007	0.001	0.000	0.110	0.000	0.320	1.3	104	1.40	0.9	-	119
DEC 28	0.007	0.001	0.000	0.120	0.000	0.320	1.3	100	1.20	0.8	-	27
min.	0.000	0.000	0.000	0.010	0.000	0.230	1.2	91	1.10	0.3	0.2	15
max.	0.007	0.005	0.030	0.220	0.005	0.330	2.1	127	1.60	1.0	0.2	541
mean	0.003	0.001	0.007	0.110	0.001	0.304	1.5	101	1.23	0.6	0.2	71
s.dev.	0.002	0.001	0.010	0.036	0.001	0.021	0.2	5	0.09	0.2	0.0	78
#samples	48	48	48	48	48	48	48	48	47	29	2	50

13-A Cont'd

Plant # 13 - TERRACE BAY W.W. 1982

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.004	0.001	0.010	0.090	0.001	0.330	1.7	100	1.30	-	-	11
JAN 12	0.004	0.001	0.010	0.090	0.001	0.340	1.3	99	1.20	0.5	-	13
JAN 18	0.004	0.001	0.020	0.130	0.001	0.330	1.3	99	1.20	0.8	-	19
JAN 26	0.004	0.002	0.030	0.050	0.001	0.330	1.6	102	1.20	0.5	-	35
FEB 1	0.004	0.001	0.010	0.090	0.001	0.330	1.5	120	1.20	-	-	21
FEB 8	-	-	-	-	-	-	-	-	-	0.5	-	15
FEB 15	0.006	0.002	0.010	0.090	0.001	0.340	1.9	104	1.20	0.7	-	15
FEB 22	0.004	0.003	0.010	0.080	0.001	0.330	1.8	103	1.30	0.2	-	14
MAR 1	0.005	0.001	0.010	0.080	0.001	0.330	1.4	101	1.20	0.7	-	21
MAR 9	-	-	-	-	-	-	-	-	-	-	-	-
MAR 15	0.004	0.001	0.020	0.080	0.001	0.320	1.3	99	1.30	-	-	25
MAR 22	0.006	0.001	0.010	0.130	0.001	0.320	1.8	100	1.20	-	-	20
MAR 29	0.004	0.001	0.010	0.090	0.001	0.320	1.3	98	1.10	-	-	23
APR 5	0.007	0.001	0.010	0.120	0.001	0.330	1.4	100	1.40	-	-	-
APR 12	0.003	0.001	0.010	0.090	0.001	0.320	1.4	100	1.30	-	-	17
APR 19	0.003	0.003	0.010	0.110	0.001	0.320	1.4	99	1.30	-	-	-
APR 26	0.004	0.001	0.010	0.120	0.001	0.300	1.2	99	1.10	0.2	-	27
MAY 3	0.005	0.001	0.010	0.110	0.001	0.320	1.7	91	1.30	-	-	29
MAY 10	0.004	0.002	0.020	0.100	0.001	0.320	1.5	101	1.20	-	-	22
MAY 17	0.004	0.001	0.030	0.130	0.001	0.320	1.4	99	1.20	0.4	-	31
MAY 25	0.003	0.001	0.010	0.090	0.001	0.310	1.5	99	1.20	0.5	-	31
MAY 31	-	-	0.010	0.110	0.001	0.320	1.3	98	1.30	0.2	-	17
JUN 7	0.002	0.001	0.010	0.110	0.001	0.300	1.9	101	1.20	0.3	-	21
JUN 14	0.003	0.001	0.010	0.100	0.001	0.310	1.5	100	1.40	0.3	-	25
JUN 21	0.003	0.001	0.010	0.100	0.001	0.320	1.4	99	1.20	0.3	-	34
JUN 28	0.006	0.001	0.010	0.250	0.001	0.320	1.5	102	1.20	0.3	-	31
JUL 5	0.004	0.002	0.030	0.180	0.003	0.350	1.5	102	1.40	0.5	-	45
JUL 12	-	0.150	0.010	0.080	0.001	0.330	1.6	101	1.30	0.4	-	-
JUL 19	0.004	0.001	0.010	0.130	0.001	0.300	1.5	101	1.20	0.4	-	28
JUL 26	0.008	0.002	0.010	0.150	0.001	0.310	1.7	103	1.20	0.6	-	47
AUG 3	0.007	0.002	0.010	0.150	0.001	0.300	1.7	104	1.30	0.6	-	46
AUG 9	-	-	-	-	-	-	-	-	-	0.4	-	63
AUG 16	0.009	0.003	0.010	0.130	0.001	0.280	1.4	104	1.40	0.3	-	50
AUG 23	0.006	0.001	0.010	0.120	0.001	0.250	1.8	104	1.10	0.4	-	75
AUG 30	0.004	0.002	0.020	0.120	0.005	0.290	1.8	104	1.20	-	-	69
SEP 7	0.005	0.001	0.010	0.110	0.001	0.270	1.7	103	1.20	0.3	-	93
SEP 13	0.004	0.001	0.010	0.180	0.001	0.280	1.4	101	1.30	0.4	-	87
SEP 20	0.004	0.002	0.020	0.180	0.002	0.280	1.3	101	1.30	0.5	-	55
SEP 27	0.003	0.001	0.010	0.150	0.002	0.270	2.0	102	1.40	0.4	-	45
OCT 5	0.006	0.001	0.010	0.130	0.001	0.280	1.4	101	1.40	-	-	88
OCT 12	0.009	0.001	0.010	0.120	0.002	0.280	1.6	102	1.20	0.2	-	53
OCT 19	0.010	0.003	0.010	0.170	0.002	0.240	1.3	103	1.10	-	-	40
OCT 26	0.005	0.001	0.010	0.190	0.002	0.270	1.3	103	1.20	-	-	49
NOV 2	0.006	0.001	0.010	0.110	0.003	0.270	1.3	104	1.20	-	-	38
NOV 8	-	-	-	-	-	-	-	-	-	-	-	36
NOV 15	0.005	0.001	0.010	0.120	0.002	0.300	1.6	102	1.20	0.2	-	34
NOV 21	0.008	0.001	0.010	0.170	0.001	0.280	1.3	101	1.20	-	-	25
NOV 29	0.005	0.001	0.010	0.150	0.001	0.300	1.3	100	1.20	0.4	-	13
DEC 6	0.004	0.001	0.010	0.110	0.001	0.280	1.4	100	1.20	0.4	-	6
DEC 13	0.006	0.001	0.010	0.130	0.001	0.280	1.3	102	1.20	0.3	-	16
DEC 20	0.019	0.012	0.010	0.110	0.001	0.310	1.4	101	1.30	0.5	-	16
DEC 27	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.002	0.001	0.010	0.050	0.001	0.240	1.2	91	1.10	0.2	-	6
max.	0.019	0.150	0.030	0.250	0.005	0.350	2.0	120	1.40	0.8	-	93
mean	0.005	0.005	0.012	0.122	0.001	0.305	1.5	101	1.24	0.4	-	35
s.dev.	0.003	0.022	0.006	0.037	0.001	0.025	0.2	4	0.08	0.2	-	21
#samples	45	46	47	47	47	47	47	47	47	33	0	47

13-A Cont'd

Plant # 13 - TERRACE BAY W.W. 1983

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 3	0.014	0.003	0.010	0.190	0.001	0.300	1.3	101	1.50	0.5	-	-
JAN 10	0.031	0.012	0.010	0.130	0.001	0.310	2.0	103	1.30	-	-	-
JAN 17	0.004	0.002	0.010	0.110	0.001	0.330	1.4	101	1.20	0.5	-	-
JAN 24	-	-	0.020	0.490	0.001	0.320	1.9	104	1.30	-	-	-
JAN 31	0.004	0.001	0.010	0.240	0.001	0.310	1.7	101	1.20	0.5	-	131
FEB 7	0.005	0.001	0.010	0.100	0.001	0.330	1.5	100	1.20	0.4	-	-
FEB 14	0.003	0.001	0.010	0.100	0.001	0.310	1.3	100	-	0.5	-	-
FEB 21	0.005	0.002	0.010	0.140	0.001	0.320	1.8	103	1.20	0.4	-	-
FEB 28	0.001	0.001	0.010	0.190	0.001	0.320	1.6	98	1.20	0.3	-	76
MAR 7	0.004	0.001	0.010	0.290	0.001	0.310	1.6	99	1.20	0.5	-	-
MAR 15	0.009	0.002	0.010	0.140	0.001	0.300	1.5	98	1.20	-	-	-
MAR 22	0.003	0.002	0.010	0.100	0.001	0.300	1.5	98	1.20	0.4	-	-
MAR 28	0.016	0.010	0.010	0.160	0.001	0.300	1.5	99	1.10	0.5	-	84
APR 4	0.006	0.001	0.010	0.140	0.001	0.300	1.8	99	1.10	-	-	-
APR 11	0.011	0.001	0.010	0.150	0.001	0.300	1.5	98	1.10	-	-	-
APR 18	0.006	0.001	0.010	0.100	0.001	0.310	1.4	98	1.10	0.3	-	-
APR 25	0.009	0.007	0.010	0.090	0.001	0.310	1.3	97	1.20	-	-	113
MAY 2	0.009	0.003	0.010	0.150	0.001	0.310	1.5	99	1.20	-	-	-
MAY 9	0.007	0.003	0.010	0.180	0.001	0.300	1.5	98	1.20	0.4	-	-
MAY 16	0.008	0.004	0.010	0.220	0.001	0.300	1.5	98	1.20	-	-	-
MAY 24	0.004	0.002	0.010	0.110	0.002	0.310	1.7	99	1.20	-	-	-
MAY 30	0.005	0.002	0.010	0.120	0.001	0.310	1.7	97	1.20	-	-	69
JUN 6	0.004	0.002	0.010	0.160	0.001	0.300	1.4	98	1.20	0.6	-	-
JUN 13	0.003	0.002	0.010	0.120	0.001	0.320	1.4	97	1.20	0.6	-	-
JUN 21	-	-	-	-	-	-	-	-	-	0.6	-	-
JUN 27	0.004	0.002	0.010	0.160	0.002	0.320	2.0	98	1.10	-	-	63
JUL 4	-	-	-	-	-	-	-	-	-	0.4	-	-
JUL 11	0.005	0.001	0.030	0.150	0.002	0.290	1.6	100	1.20	-	-	-
JUL 18	0.004	0.002	0.010	0.260	0.001	0.290	1.5	100	1.10	0.5	-	-
JUL 25	0.003	0.001	0.020	0.140	0.001	0.290	1.4	98	1.10	0.4	-	94
AUG 3	0.007	0.004	0.010	0.200	0.002	0.280	1.4	97	1.10	0.8	-	-
AUG 8	0.006	0.001	0.010	0.170	0.002	0.270	1.7	97	1.10	1.1	-	-
AUG 15	0.005	0.002	0.010	0.150	0.002	0.250	1.5	96	1.10	0.5	-	-
AUG 23	0.007	0.002	0.010	0.150	0.003	0.270	2.0	97	1.10	0.5	-	-
AUG 30	-	-	-	-	-	-	-	-	-	0.6	-	63
SEP 6	0.024	0.009	0.020	0.260	0.002	0.260	1.3	95	1.00	0.6	-	-
SEP 12	0.009	0.006	0.020	0.160	0.002	0.300	1.4	96	1.10	0.7	-	-
SEP 19	0.006	0.001	0.010	0.140	0.002	0.280	1.6	97	1.00	0.7	-	-
SEP 26	0.011	0.009	0.020	0.160	0.002	0.280	1.8	100	1.10	0.6	-	44
OCT 3	-	-	-	-	-	-	-	-	-	0.5	-	-
OCT 10	0.015	0.005	0.020	0.130	0.001	0.270	1.6	99	1.10	0.7	-	-
OCT 17	0.006	0.002	0.010	0.130	0.002	0.280	1.3	99	1.10	-	-	-
OCT 24	0.006	0.002	0.010	0.140	0.003	0.290	1.4	98	1.10	0.6	-	-
OCT 31	0.007	0.002	0.010	0.150	0.003	0.280	1.3	98	1.10	0.7	-	46
NOV 7	0.004	0.003	0.010	0.120	0.001	0.290	1.4	98	1.10	0.8	-	-
NOV 14	0.004	0.002	0.010	0.160	0.001	0.300	1.3	98	1.10	0.6	-	-
NOV 21	0.015	0.010	0.010	0.180	0.001	0.300	1.4	99	1.10	1.2	-	-
NOV 28	0.006	0.004	0.010	0.150	0.001	0.300	1.4	98	1.10	0.7	-	37
DEC 5	0.013	0.010	0.030	0.150	0.001	0.300	1.3	98	1.10	0.6	-	-
DEC 12	0.005	0.003	0.010	0.160	0.001	0.310	1.3	97	1.10	0.8	-	-
DEC 19	0.009	0.007	0.040	0.170	0.001	0.310	1.5	99	1.10	0.8	-	18
DEC 27	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.001	0.001	0.010	0.090	0.001	0.250	1.3	95	1.00	0.3	-	18
max.	0.031	0.012	0.040	0.490	0.003	0.330	2.0	104	1.50	1.2	-	131
mean	0.008	0.003	0.013	0.163	0.001	0.299	1.5	99	1.15	0.6	-	70
s.dev.	0.006	0.003	0.006	0.065	0.001	0.018	0.2	2	0.08	0.2	-	32
# Samples	46	46	47	47	47	47	47	47	46	38	0	12

13-A Cont'd

Plant # 13 TERRACE BAY W.W. 1984

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 3	0.019	0.012	0.020	0.160	0.001	0.330	1.3	98	1.10	0.8	-	-
JAN 10	0.026	0.015	0.030	0.180	0.001	0.330	1.4	99	1.10	0.6	-	-
JAN 16	0.009	0.003	0.010	0.120	0.001	0.330	1.4	98	1.10	0.8	-	-
JAN 23	-	-	-	-	-	-	-	-	-	-	-	-
JAN 30	0.005	0.002	0.010	0.120	0.001	0.320	1.4	98	1.10	0.9	-	25
FEB 6	0.004	0.001	0.010	0.120	0.001	0.320	1.5	99	1.10	0.5	-	-
FEB 13	0.006	0.001	0.010	0.200	0.001	0.320	1.6	99	1.10	0.9	-	-
FEB 20	0.020	0.006	0.010	0.250	0.001	0.320	1.6	100	1.20	1.3	0.1	-
FEB 27	0.004	0.001	0.010	0.130	0.001	0.330	1.4	99	1.10	1.3	0.1	43
MAR 6	-	-	-	-	-	-	-	-	-	1.6	0.3	-
MAR 12	0.003	0.001	0.010	0.130	0.001	0.320	1.5	100	1.10	-	-	-
MAR 19	0.004	0.001	0.010	0.130	0.001	0.310	1.4	99	1.10	0.3	0.3	-
MAR 26	0.004	0.001	0.010	0.130	0.001	0.310	1.5	100	1.10	0.3	0.2	33
APR 2	-	-	-	-	-	-	-	-	-	-	-	-
APR 9	0.004	0.001	0.010	0.120	0.001	0.310	1.5	98	1.10	0.4	-	-
APR 17	0.005	0.001	0.010	0.100	0.001	0.310	1.4	98	1.10	0.2	-	-
APR 24	0.006	0.001	0.010	0.120	0.001	0.330	1.7	100	1.20	0.4	-	-
APR 30	0.004	0.001	0.010	0.170	0.001	0.330	1.3	98	1.10	0.4	-	52
MAY 7	0.004	0.001	0.010	0.140	0.001	0.310	1.4	98	1.20	0.3	-	-
MAY 14	0.005	0.002	0.010	0.120	0.001	0.330	1.5	96	1.10	0.4	-	-
MAY 22	0.006	0.001	0.010	0.120	0.001	0.320	1.4	98	1.20	0.4	-	-
MAY 28	0.009	0.001	0.010	0.160	0.001	0.310	1.4	97	1.10	0.4	-	77
JUN 5	0.007	0.001	0.010	0.160	0.001	0.310	1.3	98	1.10	0.5	-	-
JUN 11	0.005	0.001	0.010	0.160	0.001	0.310	1.6	99	1.10	0.6	-	-
JUN 18	-	-	-	-	-	-	-	-	-	-	-	-
JUN 25	0.007	0.001	0.010	0.160	0.001	0.330	1.4	97	1.10	0.6	-	31
JUL 2	-	-	-	-	-	-	-	-	-	-	-	-
JUL 9	-	-	-	-	-	-	-	-	-	-	-	-
JUL 16	-	-	-	-	-	-	-	-	-	-	-	-
JUL 23	-	-	-	-	-	-	-	-	-	0.3	-	72
AUG 1	-	-	-	-	-	-	-	-	-	-	-	-
AUG 8	0.005	0.003	0.010	0.140	0.005	0.230	2.1	103	1.10	1.1	-	-
AUG 13	0.006	0.001	0.010	0.130	0.004	0.290	1.3	98	1.10	1.0	-	-
AUG 20	0.006	0.001	0.010	0.150	0.002	0.280	1.4	98	1.10	0.7	-	-
AUG 27	0.004	0.001	0.010	0.140	0.003	0.270	1.4	98	1.10	-	-	134
SEP 3	-	-	-	-	-	-	-	-	-	-	-	-
SEP 11	-	-	-	-	-	-	-	-	-	-	-	-
SEP 17	0.003	0.001	0.010	0.120	0.002	0.290	1.5	97	1.10	-	-	-
SEP 24	0.004	0.001	0.010	0.120	0.002	0.280	1.3	95	1.10	0.1	-	80
OCT 1	-	-	-	-	-	-	-	-	-	-	-	-
OCT 10	0.004	0.001	0.010	0.150	0.002	0.280	1.3	98	1.10	0.7	0.4	-
OCT 16	0.003	0.001	0.010	0.150	0.003	0.280	1.4	96	1.10	0.7	0.3	-
OCT 22	0.005	0.001	0.010	0.260	0.003	0.280	1.3	95	1.00	0.5	0.3	-
OCT 29	0.003	0.001	0.010	0.130	0.003	0.290	1.4	97	1.00	0.5	0.3	66
NOV 5	0.004	0.001	0.010	0.100	0.001	0.300	1.3	94	1.10	0.5	0.4	-
NOV 12	0.003	0.001	0.010	0.110	0.000	0.320	1.3	96	1.10	0.3	0.2	-
NOV 19	0.003	0.001	0.010	0.110	0.001	0.320	1.3	96	1.10	0.3	0.3	-
NOV 26	0.003	0.001	0.010	0.100	0.001	0.310	1.3	96	1.10	0.4	0.3	38
DEC 3	-	-	-	-	-	-	-	-	-	0.5	0.3	-
DEC 10	-	-	-	-	-	-	-	-	-	0.5	0.3	-
DEC 17	-	-	-	-	-	-	-	-	-	0.4	0.3	36
DEC 24	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.003	0.001	0.010	0.100	0.000	0.230	1.3	94	1.00	0.1	0.1	25
max.	0.026	0.015	0.030	0.260	0.005	0.330	2.1	103	1.20	1.6	0.4	134
mean	0.006	0.002	0.011	0.142	0.002	0.307	1.4	98	1.11	0.6	0.3	57
s.dev.	0.005	0.003	0.004	0.036	0.001	0.022	0.2	2	0.04	0.3	0.1	31
#samples	36	36	36	36	36	36	36	36	36	38	16	12

13-A Cont'd

Plant # 13 - TERRACE BAY W.W. 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.090	0.000	0.230	1.0	96	1.10	0.6	0.8	12
max.	0.021	0.018	0.060	0.350	0.002	0.330	4.0	102	1.40	2.6	2.1	138
mean	0.006	0.002	0.018	0.179	0.001	0.287	2.3	100	1.14	1.1	1.4	52
s.dev.	0.005	0.004	0.016	0.071	0.001	0.021	0.7	2	0.07	0.6	0.5	33
#samples	23	23	23	23	23	23	24	24	23	11	11	26

Plant # 13 - TERRACE BAY W.W. 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.040	0.000	0.230	1.3	96	1.10	0.0	-	9
max.	0.016	0.008	0.060	0.430	0.004	0.330	3.0	140	1.30	1.3	-	115
mean	0.004	0.001	0.014	0.146	0.001	0.296	1.7	101	1.18	0.7	-	44
s.dev.	0.004	0.002	0.017	0.080	0.001	0.026	0.3	7	0.05	0.4	-	28
#samples	40	40	39	39	40	40	40	40	40	21	0	28

Plant # 13 - TERRACE BAY W.W. 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.010	0.000	0.230	1.2	91	1.10	0.3	0.2	15
max.	0.007	0.005	0.030	0.220	0.005	0.330	2.1	127	1.60	1.0	0.2	541
mean	0.003	0.001	0.007	0.110	0.001	0.304	1.5	101	1.23	0.6	0.2	71
s.dev.	0.002	0.001	0.010	0.036	0.001	0.021	0.2	5	0.09	0.2	0.0	78
#samples	48	48	48	48	48	48	48	48	47	29	2	50

Plant # 13 - TERRACE BAY W.W. 1982

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.002	0.001	0.010	0.050	0.001	0.240	1.2	91	1.10	0.2	-	6
max.	0.019	0.150	0.030	0.250	0.005	0.350	2.0	120	1.40	0.8	-	93
mean	0.005	0.005	0.012	0.122	0.001	0.305	1.5	101	1.24	0.4	-	35
s.dev.	0.003	0.022	0.006	0.037	0.001	0.025	0.2	4	0.08	0.2	-	21
#samples	45	46	47	47	47	47	47	47	47	33	0	47

Plant # 13 - TERRACE BAY W.W. 1983

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.001	0.001	0.010	0.090	0.001	0.250	1.3	95	1.00	0.3	-	18
max.	0.031	0.012	0.040	0.490	0.003	0.330	2.0	104	1.50	1.2	-	131
mean	0.008	0.003	0.013	0.163	0.001	0.299	1.5	99	1.15	0.6	-	70
s.dev.	0.006	0.003	0.006	0.065	0.001	0.018	0.2	2	0.08	0.2	-	32
#samples	46	46	47	47	47	47	47	47	46	38	0	12

Plant # 13 - TERRACE BAY W.W. 1984

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.003	0.001	0.010	0.100	0.000	0.230	1.3	94	1.00	0.1	0.1	25
max.	0.026	0.015	0.030	0.260	0.005	0.330	2.1	103	1.20	1.6	0.4	134
mean	0.006	0.002	0.011	0.142	0.002	0.307	1.4	98	1.11	0.6	0.3	57
s.dev.	0.005	0.003	0.004	0.036	0.001	0.022	0.2	2	0.04	0.3	0.1	31
#samples	36	36	36	36	36	36	36	36	36	38	16	12

13-B Cont'd

Plant # 13 - TERRACE BAY W.W. 1979

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	0	0	0	0	0	0	0	0	0	0	0	0
JAN	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	No	0	0	0	0	0	0	0	0	0	0	0	0
FEB	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	No	0	0	0	0	0	0	0	0	0	0	0	0
MAR	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	No	0	0	0	0	0	0	0	0	0	0	0	0
APR	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	No	0	0	0	0	0	0	1	1	1	1	1	1
MAY	m	-	-	-	-	-	-	4.0	100	1.40	2.60	2.0	25
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	No	4	4	4	4	4	4	4	4	3	3	3	4
JUN	m	0.005	0.003	0.003	0.130	0.001	0.298	2.0	98	1.20	0.77	1.1	38
	SD	0.004	0.005	0.005	0.014	0.000	0.010	0.8	1	0.00	0.15	0.3	8
	No	5	5	5	5	5	5	5	5	5	5	5	5
JUL	m	0.005	0.001	0.022	0.192	0.001	0.268	2.4	100	1.12	1.10	1.6	85
	SD	0.002	0.001	0.022	0.094	0.001	0.023	0.5	2	0.04	0.29	0.5	41
	No	2	2	2	2	2	2	2	2	2	2	2	2
AUG	m	0.004	0.002	0.035	0.270	0.001	0.280	3.0	101	1.10	0.85	1.4	107
	SD	0.000	0.001	0.007	0.071	0.001	0.000	0.0	1	0.00	0.21	0.1	32
	No	4	4	4	4	4	4	4	4	4	0	0	4
SEP	m	0.004	0.000	0.028	0.200	0.001	0.270	2.0	101	1.10	-	-	49
	SD	0.004	0.001	0.017	0.055	0.001	0.008	0.0	2	0.00	-	-	17
	No	2	2	2	2	2	2	2	2	2	0	0	3
OCT	m	0.012	0.012	0.020	0.090	0.001	0.290	2.5	98	1.10	-	-	32
	SD	0.013	0.009	0.014	0.000	0.000	0.000	0.7	0	0.00	-	-	9
	No	3	3	3	3	3	3	3	3	3	0	0	4
NOV	m	0.006	0.001	0.013	0.197	0.001	0.303	2.0	99	1.10	-	-	27
	SD	0.007	0.000	0.006	0.081	0.001	0.006	1.0	1	0.00	-	-	12
	No	3	3	3	3	3	3	3	3	3	0	0	3
DEC	m	0.008	0.001	0.013	0.177	0.000	0.317	1.7	99	1.17	-	-	44
	SD	0.002	0.001	0.015	0.031	0.000	0.012	0.6	2	0.06	-	-	19

Plant # 13 - TERRACE BAY W.W. 1980

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	2	2	2	2	2	2	2	2	2	0	0	2
JAN	m	0.000	0.003	0.020	0.160	0.000	0.325	1.6	100	1.25	-	-	25
	SD	0.000	0.001	0.000	0.014	0.000	0.007	0.1	1	0.07	-	-	5
	No	4	4	4	4	4	4	4	4	4	1	0	4
FEB	m	0.006	0.003	0.023	0.255	0.001	0.320	1.8	102	1.20	1.30	-	66
	SD	0.006	0.004	0.015	0.120	0.001	0.000	0.4	2	0.00	-	-	45
	No	4	4	4	4	4	4	4	4	4	1	0	4
MAR	m	0.004	0.000	0.033	0.220	0.000	0.323	1.9	100	1.18	0.70	-	36
	SD	0.001	0.001	0.017	0.127	0.000	0.005	0.2	3	0.05	-	-	21
	No	4	4	4	4	4	4	4	4	4	0	0	4
APR	m	0.006	0.003	0.045	0.208	0.000	0.313	2.0	99	1.20	-	-	35
	SD	0.007	0.001	0.013	0.035	0.001	0.005	0.1	1	0.00	-	-	17
	No	2	2	2	2	2	2	2	2	2	0	0	0
MAY	m	0.002	0.000	0.000	0.110	0.003	0.285	1.7	102	1.25	-	-	-
	SD	0.002	0.000	0.000	0.014	0.001	0.021	0.0	1	0.07	-	-	-
	No	1	1	1	1	1	1	1	1	1	3	0	0
JUN	m	0.002	0.000	0.000	0.080	0.000	0.290	1.4	100	1.10	0.50	-	-
	SD	-	-	-	-	-	-	-	-	-	0.62	-	-
	No	4	4	3	3	4	4	4	4	4	1	0	0
JUL	m	0.000	0.000	0.007	0.093	0.001	0.285	2.1	115	1.20	0.00	-	-
	SD	0.001	0.000	0.006	0.050	0.001	0.006	0.6	18	0.00	-	-	-
	No	4	4	4	4	4	4	4	4	4	3	0	0
AUG	m	0.003	0.001	0.010	0.113	0.002	0.255	1.6	97	1.10	1.00	-	-
	SD	0.001	0.002	0.012	0.017	0.001	0.006	0.2	1	0.00	0.30	-	-
	No	3	3	3	3	3	3	3	3	3	3	0	2
SEP	m	0.006	0.002	0.007	0.117	0.001	0.250	1.5	98	1.10	0.73	-	94
	SD	0.006	0.002	0.006	0.012	0.001	0.017	0.2	2	0.00	0.25	-	29
	No	3	3	3	3	3	3	3	3	3	2	0	3
OCT	m	0.003	0.000	0.003	0.127	0.003	0.277	1.3	98	1.13	0.55	-	53
	SD	0.003	0.001	0.006	0.055	0.001	0.015	0.0	1	0.06	0.07	-	27
	No	4	4	4	4	4	4	4	4	4	3	0	4
NOV	m	0.004	0.000	0.003	0.103	0.000	0.310	1.4	98	1.20	0.83	-	40
	SD	0.003	0.001	0.005	0.041	0.000	0.000	0.1	1	0.00	0.45	-	12
	No	5	5	5	5	5	5	5	5	5	4	0	5
DEC	m	0.003	0.000	0.002	0.098	0.000	0.306	1.4	99	1.20	0.58	-	27
	SD	0.003	0.000	0.004	0.029	0.000	0.015	0.2	1	0.00	0.10	-	8

13-C Cont'd.

Plant # 13 - TERRACE BAY W.W. 1981

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	4	4	4	4	4	4	4	4	4	1	0	4
	m	0.004	0.000	0.003	0.095	0.000	0.320	1.6	100	1.20	0.50	-	20
	SD	0.002	0.001	0.005	0.042	0.001	0.008	0.2	1	0.00	-	-	5
FEB	No	4	4	4	4	4	4	4	4	4	3	0	4
	m	0.003	0.001	0.008	0.110	0.001	0.318	1.7	101	1.20	0.57	-	50
	SD	0.002	0.002	0.015	0.044	0.001	0.005	0.1	1	0.00	0.15	-	16
MAR	No	4	4	4	4	4	4	4	4	4	3	0	5
	m	0.002	0.000	0.008	0.125	0.000	0.313	1.6	99	1.20	0.40	-	41
	SD	0.002	0.001	0.010	0.034	0.001	0.010	0.2	2	0.00	0.10	-	14
APR	No	4	4	4	4	4	4	4	4	4	0	0	4
	m	0.002	0.001	0.013	0.130	0.000	0.315	1.4	100	1.20	-	-	30
	SD	0.001	0.001	0.010	0.022	0.001	0.006	0.1	1	0.00	-	-	6
MAY	No	4	4	4	4	4	4	4	4	4	2	0	4
	m	0.002	0.001	0.003	0.078	0.001	0.303	1.3	97	1.20	0.50	-	66
	SD	0.002	0.001	0.005	0.048	0.001	0.005	0.1	4	0.00	0.14	-	14
JUN	No	5	5	5	5	5	5	5	5	5	3	0	5
	m	0.003	0.002	0.004	0.110	0.001	0.306	1.5	106	1.22	0.60	-	87
	SD	0.001	0.001	0.009	0.020	0.001	0.005	0.1	12	0.11	0.20	-	22
JUL	No	4	4	4	4	4	4	4	4	4	3	0	4
	m	0.004	0.003	0.003	0.130	0.001	0.295	1.7	102	1.18	0.40	-	103
	SD	0.001	0.001	0.005	0.018	0.001	0.006	0.3	1	0.05	0.10	-	18
AUG	No	4	4	4	4	4	4	4	4	4	2	2	5
	m	0.004	0.002	0.010	0.153	0.002	0.255	1.5	101	1.30	1.00	0.2	223
	SD	0.001	0.001	0.012	0.047	0.000	0.024	0.3	3	0.14	0.00	0.0	180
SEP	No	3	3	3	3	3	3	3	3	2	1	0	3
	m	0.004	0.001	0.013	0.107	0.002	0.287	1.5	101	1.35	0.60	-	43
	SD	0.002	0.000	0.015	0.023	0.001	0.021	0.2	2	0.07	-	-	26
OCT	No	4	4	4	4	4	4	4	4	4	4	0	4
	m	0.003	0.001	0.005	0.080	0.002	0.298	1.3	100	1.25	0.50	-	63
	SD	0.001	0.001	0.010	0.022	0.002	0.005	0.1	1	0.24	0.14	-	16
NOV	No	4	4	4	4	4	4	4	4	4	3	0	4
	m	0.004	0.002	0.015	0.110	0.002	0.305	1.5	105	1.20	0.43	-	32
	SD	0.001	0.001	0.017	0.035	0.003	0.019	0.1	10	0.00	0.06	-	5
DEC	No	4	4	4	4	4	4	4	4	4	4	0	4
	m	0.006	0.002	0.000	0.098	0.000	0.325	1.3	101	1.28	0.70	-	57
	SD	0.002	0.002	0.000	0.022	0.000	0.006	0.1	3	0.10	0.18	-	42

13-C Cont'd.

Plant # 13 - TERRACE BAY W.W. 1982

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	4	4	3	0	4
JAN	m	0.004	0.001	0.018	0.090	0.001	0.333	1.5	100	1.23	0.60	-	21
	SD	0.000	0.001	0.010	0.033	0.000	0.005	0.2	1	0.05	0.17	-	10
	NO	3	3	3	3	3	3	3	3	3	3	0	4
FEB	m	0.005	0.002	0.010	0.087	0.001	0.333	1.7	109	1.23	0.47	-	16
	SD	0.001	0.001	0.000	0.006	0.000	0.006	0.2	10	0.06	0.25	-	3
	NO	4	4	4	4	4	4	4	4	4	1	0	4
MAR	m	0.005	0.001	0.013	0.095	0.001	0.323	1.5	100	1.20	0.70	-	22
	SD	0.001	0.000	0.005	0.024	0.000	0.005	0.2	1	0.08	-	-	2
	NO	4	4	4	4	4	4	4	4	4	1	0	2
APR	m	0.004	0.002	0.010	0.110	0.001	0.318	1.4	100	1.28	0.20	-	22
	SD	0.002	0.001	0.000	0.014	0.000	0.013	0.1	1	0.13	-	-	7
	NO	4	4	5	5	5	5	5	5	5	3	0	5
MAY	m	0.004	0.001	0.016	0.108	0.001	0.318	1.5	98	1.24	0.37	-	26
	SD	0.001	0.001	0.009	0.015	0.000	0.004	0.1	4	0.05	0.15	-	6
	NO	4	4	4	4	4	4	4	4	4	4	0	4
JUN	m	0.004	0.001	0.010	0.140	0.001	0.313	1.6	101	1.25	0.30	-	28
	SD	0.002	0.000	0.000	0.073	0.000	0.010	0.2	1	0.10	0.00	-	6
	NO	3	4	4	4	4	4	4	4	4	4	0	3
JUL	m	0.005	0.039	0.015	0.135	0.002	0.323	1.6	102	1.28	0.48	-	40
	SD	0.002	0.074	0.010	0.042	0.001	0.022	0.1	1	.10	0.10	-	10
	NO	4	4	4	4	4	4	4	4	4	4	0	5
AUG	m	0.007	0.002	0.013	0.130	0.002	0.280	1.7	104	1.25	0.43	-	61
	SD	0.002	0.001	0.005	0.014	0.002	0.022	0.2	0	0.13	0.13	-	12
	NO	4	4	4	4	4	4	4	4	4	4	0	4
SEP	m	0.004	0.001	0.013	0.155	0.002	0.275	1.6	102	1.30	0.40	-	70
	SD	0.001	0.001	0.005	0.033	0.001	0.006	0.3	1	0.08	0.08	-	24
	NO	4	4	4	4	4	4	4	4	4	1	0	4
OCT	m	0.008	0.002	0.010	0.153	0.002	0.268	1.4	102	1.23	0.20	-	58
	SD	0.002	0.001	0.000	0.033	0.001	0.019	0.1	1	0.13	-	-	21
	NO	4	4	4	4	4	4	4	4	4	2	0	5
NOV	m	0.006	0.001	0.010	0.138	0.002	0.288	1.4	102	1.20	0.30	-	29
	SD	0.001	0.000	0.000	0.028	0.001	0.015	0.2	2	0.00	0.14	-	10
	NO	3	3	3	3	3	3	3	3	3	3	0	3
DEC	m	0.010	0.005	0.010	0.117	0.001	0.290	1.4	101	1.23	0.40	-	13
	SD	0.008	0.006	0.000	0.012	0.000	0.017	0.1	1	0.06	0.10	-	6

13-C Cont'd

Plant # 13 - TERRACE BAY W.W. 1983

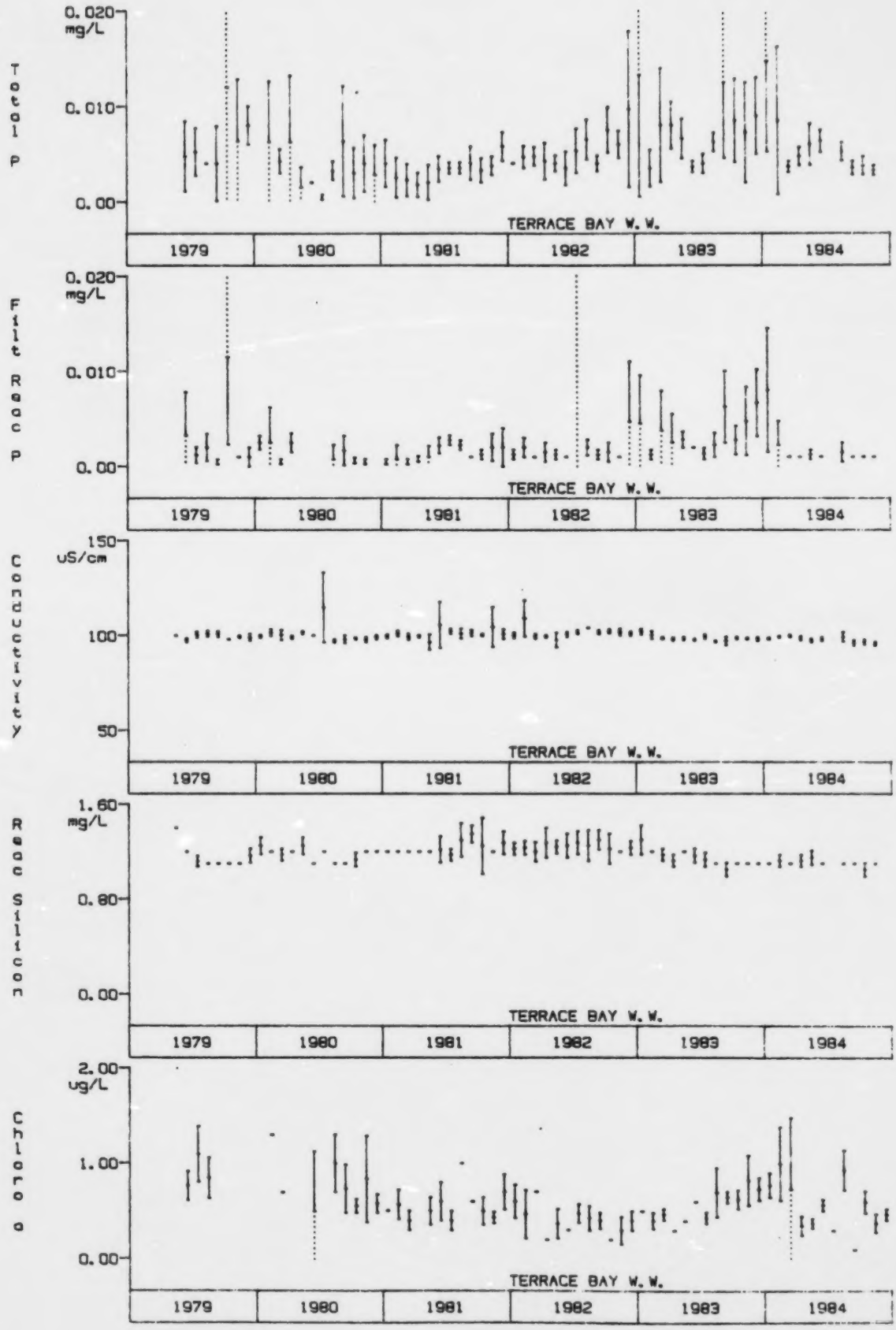
		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	4	4	5	5	5	5	5	5	5	3	0	1
JAN	m	0.013	0.005	0.012	0.232	0.001	0.314	1.7	102	1.30	0.50	-	131
	SD	0.013	0.005	0.004	0.153	0.000	0.011	0.3	1	0.12	0.00	-	-
	No	4	4	4	4	4	4	4	4	3	4	0	1
FEB	m	0.004	0.001	0.010	0.133	0.001	0.320	1.6	100	1.20	0.40	-	76
	SD	0.002	0.001	0.000	0.043	0.000	0.008	0.2	2	0.00	0.08	-	-
	No	4	4	4	4	4	4	4	4	4	3	0	1
MAR	m	0.008	0.004	0.010	0.173	0.001	0.303	1.5	99	1.18	0.47	-	84
	SD	0.006	0.004	0.000	0.082	0.000	0.005	0.1	1	0.05	0.06	-	-
	No	4	4	4	4	4	4	4	4	4	1	0	1
APR	m	0.008	0.003	0.010	0.120	0.001	0.305	1.5	98	1.13	0.30	-	113
	SD	0.002	0.003	0.000	0.029	0.000	0.006	0.2	1	0.05	-	-	-
	No	5	5	5	5	5	5	5	5	5	1	0	1
MAY	m	0.007	0.003	0.010	0.156	0.001	0.306	1.6	98	1.20	0.40	-	69
	SD	0.002	0.001	0.000	0.045	0.000	0.005	0.1	1	0.00	-	-	-
	No	3	3	3	3	3	3	3	3	3	3	0	1
JUN	m	0.004	0.002	0.010	0.147	0.001	0.313	1.6	98	1.17	0.60	-	63
	SD	0.001	0.000	0.000	0.023	0.001	0.012	0.3	1	0.06	0.00	-	-
	No	3	3	3	3	3	3	3	3	3	3	0	1
JUL	m	0.004	0.001	0.020	0.183	0.001	0.290	1.5	99	1.13	0.43	-	94
	SD	0.001	0.001	0.010	0.067	0.001	0.000	0.1	1	0.06	0.06	-	-
	No	4	4	4	4	4	4	4	4	4	5	0	1
AUG	m	0.006	0.002	0.010	0.168	0.002	0.268	1.7	97	1.10	0.70	-	63
	SD	0.001	0.001	0.000	0.024	0.001	0.013	0.3	1	0.00	0.25	-	-
	No	4	4	4	4	4	4	4	4	4	4	0	1
SEP	m	0.013	0.006	0.018	0.180	0.002	0.280	1.5	97	1.05	0.65	-	44
	SD	0.008	0.004	0.005	0.054	0.000	0.016	0.2	2	0.06	0.06	-	-
	NO	4	4	4	4	4	4	4	4	4	4	0	1
OCT	m	0.009	0.003	0.013	0.138	0.002	0.280	1.4	99	1.10	0.63	-	46
	SD	0.004	0.002	0.005	0.010	0.001	0.008	0.1	1	0.00	0.10	-	-
	No	4	4	4	4	4	4	4	4	4	4	0	1
NOV	m	0.007	0.005	0.010	0.153	0.001	0.298	1.4	98	1.10	0.83	-	37
	SD	0.005	0.004	0.000	0.025	0.000	0.005	0.1	1	0.00	0.26	-	-
	No	3	3	3	3	3	3	3	3	3	3	0	1
DEC	m	0.009	0.007	0.027	0.160	0.001	0.307	1.4	98	1.10	0.73	-	18
	SD	0.004	0.004	0.015	0.010	0.000	0.006	0.1	1	0.00	0.12	-	-

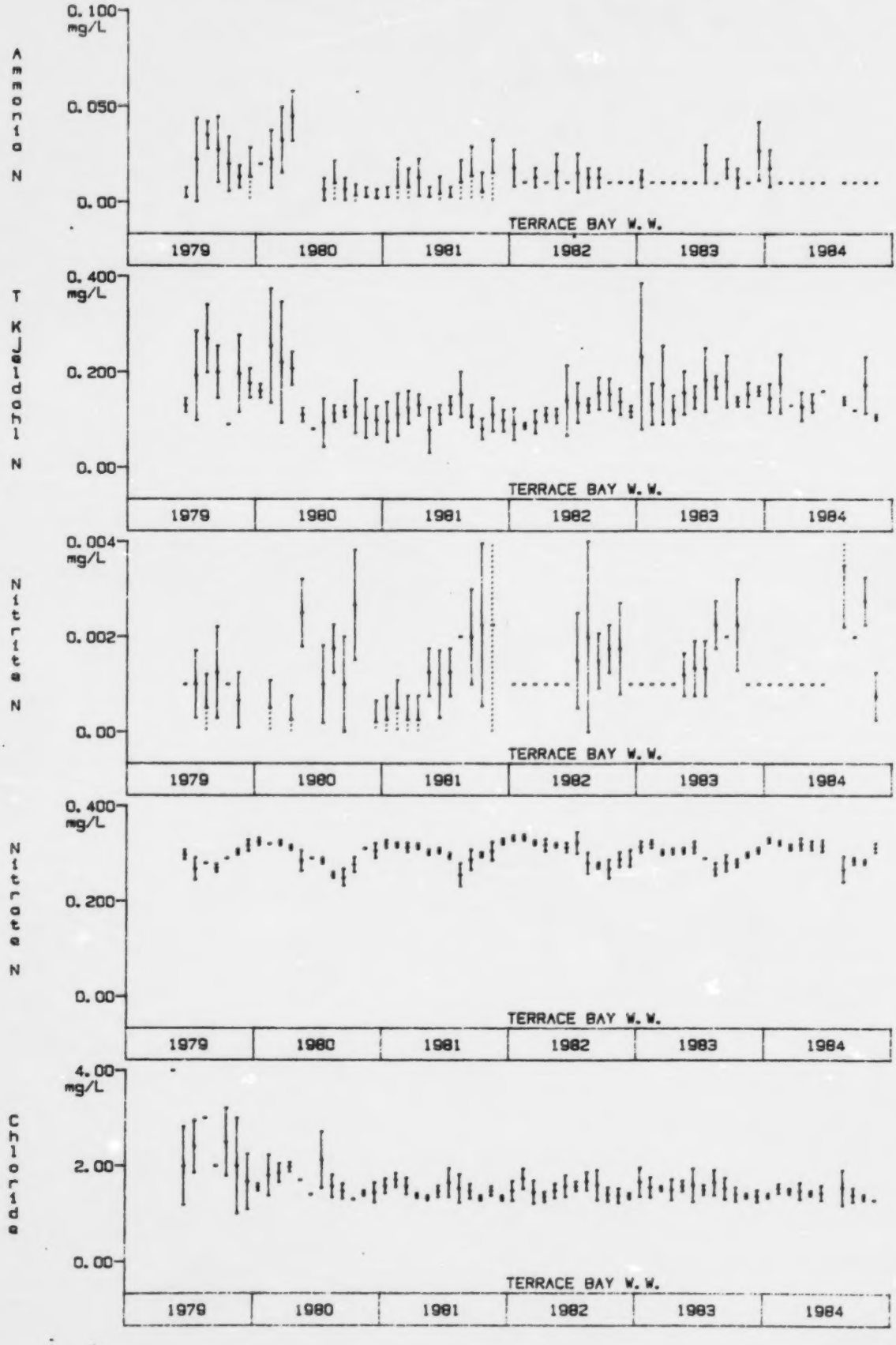
13-C Cont'd

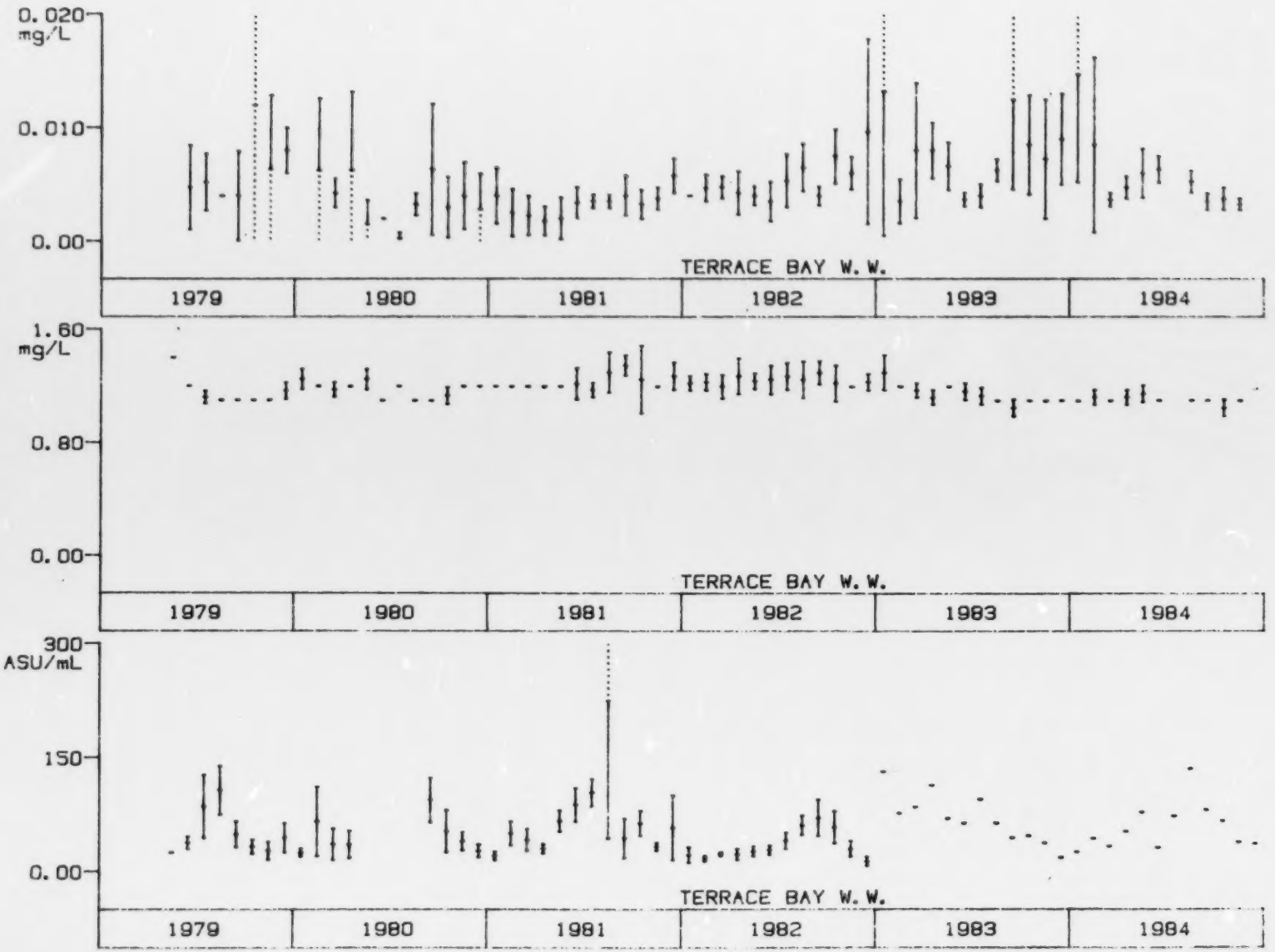
Plant # 13 - TERRACE BAY W.W. 1984

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	4	4	4	0	1
JAN	m	0.015	0.008	0.018	0.145	0.001	0.328	1.4	98	1.10	0.78	-	25
	SD	0.010	0.006	0.010	0.030	0.000	0.005	0.1	1	0.00	0.13	-	-
	NO	4	4	4	4	4	4	4	4	4	4	2	1
FEB	m	0.009	0.002	0.010	0.175	0.001	0.323	1.5	99	1.13	1.00	0.1	43
	SD	0.008	0.003	0.000	0.061	0.000	0.005	0.1	1	0.05	0.38	0.0	-
	NO	3	3	3	3	3	3	3	3	3	3	3	1
MAR	m	0.004	0.001	0.010	0.130	0.001	0.313	1.5	100	1.10	0.73	0.3	33
	SD	0.001	0.000	0.000	0.000	0.000	0.006	0.1	1	0.00	0.75	0.1	-
	NO	4	4	4	4	4	4	4	4	4	4	0	1
APR	m	0.005	0.001	0.010	0.128	0.001	0.320	1.5	99	1.13	0.35	-	52
	SD	0.001	0.000	0.000	0.030	0.000	0.012	0.2	1	0.05	0.10	-	-
	NO	4	4	4	4	4	4	4	4	4	4	0	1
MAY	m	0.006	0.001	0.010	0.135	0.001	0.318	1.4	97	1.15	0.38	-	77
	SD	0.002	0.001	0.000	0.019	0.000	0.010	0.1	1	0.06	0.05	-	-
	NO	3	3	3	3	3	3	3	3	3	3	0	1
JUN	m	0.006	0.001	0.010	0.160	0.001	0.317	1.4	98	1.10	0.57	-	31
	SD	0.001	0.000	0.000	0.000	0.000	0.012	0.2	1	0.00	0.06	-	-
	NO	0	0	0	0	0	0	0	0	0	1	0	1
JUL	m	-	-	-	-	-	-	-	-	-	0.30	-	72
	SD	-	-	-	-	-	-	-	-	-	-	-	-
	NO	4	4	4	4	4	4	4	4	4	3	0	1
AUG	m	0.005	0.002	0.010	0.140	0.004	0.268	1.6	99	1.10	0.93	-	134
	SD	0.001	0.001	0.000	0.008	0.001	0.026	0.4	3	0.00	0.21	-	-
	NO	2	2	2	2	2	2	2	2	2	1	0	1
SEP	m	0.004	0.001	0.010	0.120	0.002	0.285	1.4	96	1.10	0.10	-	80
	SD	0.001	0.000	0.000	0.000	0.000	0.007	0.1	1	0.00	-	-	-
	NO	4	4	4	4	4	4	4	4	4	4	4	1
OCT	m	0.004	0.001	0.010	0.173	0.003	0.283	1.4	97	1.05	0.60	0.3	66
	SD	0.001	0.000	0.000	0.059	0.001	0.005	0.1	1	0.06	0.12	0.1	-
	NO	4	4	4	4	4	4	4	4	4	4	4	1
NOV	m	0.003	0.001	0.010	0.105	0.001	0.313	1.3	96	1.10	0.38	0.3	38
	SD	0.001	0.000	0.000	0.006	0.001	0.010	0.0	1	0.00	0.10	0.1	-
	NO	0	0	0	0	0	0	0	0	0	3	3	1
DEC	m	-	-	-	-	-	-	-	-	-	0.47	0.3	36
	SD	-	-	-	-	-	-	-	-	-	0.06	0.0	-

13-C Cont'd


Total P
0.020
mg/L
0.010
0.00
TERRACE BAY W. W.
1979
1980
1981
1982
1983
1984
Filt Reac P
0.020
mg/L
0.010
0.00
TERRACE BAY W. W.
1979
1980
1981
1982
1983
1984
Conductivity
150
uS/cm
100
50
TERRACE BAY W. W.
1979
1980
1981
1982
1983
1984
Reac Silicon
1.60
mg/L
0.80
0.00
TERRACE BAY W. W.
1979
1980
1981
1982
1983
1984
Chloro a
2.00
ug/L
1.00
0.00
TERRACE BAY W. W.
1979
1980
1981
1982
1983
1984


Ammonia N
0.100 mg/L
0.050
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
T Kjeldahl N
0.400 mg/L
0.200
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
Nitrite N
0.004 mg/L
0.002
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
Nitrate N
0.400 mg/L
0.200
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
Chloride
4.00 mg/L
2.00
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984


Total P
0.020
mg/L
0.010
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
Reac Silicon
1.60
mg/L
0.80
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984
Phytoplankton
300
ASU/mL
150
0.00
TERRACE BAY W.W.
1979
1980
1981
1982
1983
1984

Appendix No. 14:

THUNDER BAY W.W.

for Report

on

THE TROPHIC STATUS OF NEARSHORE WATERS

IN LAKE SUPERIOR AT THREE ONTARIO WATER SUPPLY INTAKES

1976 - 1984

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JUL 17	0.004	0.001	0.010	0.070	0.002	0.250	3.0	101	1.20	0.9	1.2	93
JUL 24	0.006	0.001	0.010	0.130	0.002	0.220	3.0	100	1.20	0.9	0.7	156
JUL 31	0.005	0.001	0.010	0.150	0.004	0.200	2.0	102	1.10	1.4	1.0	240
AUG 7	0.007	0.000	0.010	0.130	0.003	0.290	3.0	102	1.20	-	-	142
AUG 14	0.003	0.001	0.000	0.140	0.003	0.260	3.0	102	1.10	0.9	0.9	211
AUG 21	0.005	0.001	0.010	0.110	0.003	0.260	2.0	103	1.00	-	-	251
AUG 28	0.006	0.001	0.000	0.120	0.003	0.250	3.0	102	1.10	-	-	282
SEP 4	0.004	0.001	0.000	0.100	0.001	0.270	3.0	103	1.10	-	-	171
SEP 11	0.004	0.000	0.000	0.410	0.001	0.240	2.0	102	1.10	-	-	159
SEP 18	0.002	0.000	0.010	0.100	0.002	0.270	2.0	104	1.10	-	-	119
SEP 25	0.002	0.001	0.000	0.070	0.001	0.270	2.0	104	1.10	-	-	171
OCT 2	0.005	0.001	0.000	0.140	0.001	0.260	2.0	103	1.10	-	-	114
OCT 9	0.000	0.001	0.000	0.110	0.002	0.270	2.0	103	1.10	-	-	97
OCT 16	0.005	0.000	0.010	0.100	0.001	0.270	2.0	102	1.20	-	-	69
OCT 23	0.000	0.001	0.000	0.080	0.001	0.280	2.0	102	0.98	-	-	117
OCT 30	0.002	0.001	0.000	0.140	0.001	0.290	2.0	97	0.97	-	-	92
NOV 6	0.000	0.001	0.000	0.100	0.002	0.270	2.0	103	1.10	-	-	108
NOV 13	0.001	0.002	0.000	0.110	0.001	0.300	2.0	102	1.10	-	-	68
NOV 20	0.004	0.002	0.010	0.110	0.001	0.300	2.0	103	1.10	-	-	64
NOV 27	-	-	-	-	-	-	-	-	-	-	-	83
DEC 4	0.002	0.000	0.000	0.100	0.000	0.300	1.0	102	1.20	-	-	60
DEC 11	0.004	0.000	0.000	0.130	0.000	0.300	2.0	100	1.20	-	-	27
DEC 18	0.009	0.001	0.000	0.100	0.001	0.300	2.0	101	1.20	-	-	39
min.	0.000	0.000	0.000	0.070	0.000	0.200	1.0	97	0.97	0.9	0.7	27
max.	0.009	0.002	0.010	0.410	0.004	0.300	3.0	104	1.20	1.4	1.2	282
mean	0.004	0.001	0.004	0.125	0.002	0.269	2.2	102	1.12	1.0	1.0	128
s.dev.	0.002	0.001	0.005	0.067	0.001	0.027	0.5	2	0.07	0.3	0.2	69
#samples	22	22	22	22	22	22	22	22	22	4	4	23

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 2	0.001	0.001	0.000	0.120	0.001	0.310	1.6	101	1.20	-	-	26
JAN 8	0.006	0.001	0.000	0.100	0.001	0.330	1.6	101	1.20	-	-	56
JAN 15	0.000	0.001	0.000	0.050	0.001	0.310	1.5	101	1.20	-	-	21
JAN 22	0.005	0.001	0.000	0.080	0.001	0.310	1.6	102	1.20	-	-	48
JAN 29	0.000	0.001	0.000	0.120	0.002	0.300	2.0	112	1.30	-	-	78
FEB 5	0.006	0.000	0.000	0.110	0.003	0.310	1.9	107	1.30	-	-	59
FEB 12	0.005	0.001	0.000	0.090	0.001	0.310	1.8	105	1.30	-	-	97
FEB 19	0.013	0.003	0.000	0.090	0.001	0.320	1.7	108	1.20	1.3	-	59
FEB 26	0.004	0.002	0.000	0.100	0.000	0.310	1.6	104	1.20	0.9	-	73
MAR 4	0.002	0.000	0.000	0.100	0.001	0.320	1.7	105	1.30	0.7	-	40
MAR 11	0.001	0.000	0.000	0.080	0.001	0.320	1.6	104	1.20	0.8	-	45
MAR 18	0.004	0.001	0.000	0.070	0.001	0.320	1.7	104	1.20	0.6	-	80
MAR 25	0.000	0.001	0.000	0.030	0.000	0.320	1.6	104	1.20	-	-	32
APR 1	0.000	0.000	0.000	0.080	0.001	0.320	1.6	102	1.20	1.4	-	56
APR 8	0.006	0.000	0.000	0.090	0.000	0.320	1.9	104	1.20	0.8	-	19
APR 15	0.006	0.001	0.000	0.110	0.001	0.300	1.9	103	1.20	1.2	-	99
APR 21	0.003	0.003	0.050	0.220	0.000	0.310	2.1	100	1.20	-	-	65
APR 28	0.000	0.001	0.000	0.170	0.001	0.320	1.9	99	1.20	-	-	34
MAY 6	0.000	0.000	0.010	0.120	0.003	0.270	1.7	102	1.30	-	-	71
MAY 13	0.000	0.001	0.000	0.100	0.002	0.030	1.7	101	1.20	1.2	-	56
MAY 21	0.000	0.002	0.010	0.080	0.001	0.280	1.8	100	1.20	-	-	56
MAY 27	-	-	-	-	-	-	-	-	-	0.9	-	65
JUN 3	0.000	0.000	0.000	0.100	0.001	0.330	1.6	99	1.20	-	-	66
JUN 10	0.000	0.000	0.000	0.120	0.002	0.280	1.6	100	1.20	-	-	166
JUN 17	0.005	0.000	0.000	0.090	0.002	0.270	1.8	102	1.20	1.2	-	-
JUN 24	0.003	0.000	0.000	0.110	0.002	0.270	1.7	102	1.10	0.1	-	-
JUL 2	0.000	0.000	0.000	0.100	0.003	0.250	1.9	102	1.20	1.4	-	-
JUL 8	0.009	0.000	0.010	0.110	0.002	0.260	1.8	102	1.20	1.7	-	-
JUL 15	0.000	0.000	0.000	0.110	0.002	0.240	2.0	102	1.10	1.2	-	-
JUL 22	0.001	0.000	0.010	0.040	0.002	0.250	2.0	102	1.10	1.0	-	-
JUL 29	0.000	0.000	0.000	0.110	0.002	0.250	2.0	103	1.10	-	-	-
AUG 5	0.000	0.000	0.010	0.080	0.002	0.280	1.7	102	1.20	-	-	-
AUG 12	0.000	0.000	0.000	0.080	0.002	0.230	1.9	103	1.00	1.2	-	-
AUG 19	0.000	0.000	0.020	0.070	0.002	0.220	2.0	102	1.00	1.2	-	-
AUG 26	0.000	0.001	0.020	0.120	0.001	0.210	1.8	102	1.00	1.0	-	-
SEP 2	0.000	0.000	0.030	0.080	0.001	0.230	1.7	114	1.00	0.7	-	-
SEP 9	0.000	0.000	0.020	0.130	0.001	0.280	1.6	102	1.20	-	-	-
SEP 16	0.007	0.000	0.000	0.090	0.000	0.300	1.6	100	1.20	-	-	-
SEP 23	0.004	0.000	0.010	0.090	0.010	0.270	1.5	104	1.20	-	-	65
SEP 30	0.005	0.001	0.020	0.110	0.001	0.260	1.7	102	1.10	0.8	-	87
OCT 7	0.001	0.001	0.000	0.100	0.002	0.260	1.7	102	1.10	1.4	-	173
OCT 14	0.007	0.001	0.000	0.160	0.001	0.280	1.7	99	1.10	1.0	-	109
OCT 21	0.002	0.001	0.000	0.120	0.002	0.270	1.7	104	1.10	1.1	-	143
OCT 28	0.003	0.000	0.020	0.090	0.001	0.290	1.6	99	1.10	-	-	137
NOV 4	0.008	0.003	0.020	0.150	0.001	0.270	1.6	101	1.20	0.7	-	98
NOV 12	0.005	0.000	0.020	0.090	0.001	0.280	1.7	103	1.10	1.6	-	135
NOV 18	0.008	0.000	0.010	0.130	0.001	0.280	1.7	102	1.10	0.7	-	78
NOV 25	0.002	0.000	0.000	0.100	0.000	0.290	1.7	102	1.10	0.7	-	95
DEC 2	0.002	0.000	0.000	0.090	0.000	0.270	1.7	102	1.20	0.7	-	94
DEC 10	0.000	0.000	0.010	0.100	0.001	0.260	1.8	103	1.20	-	-	81
DEC 16	0.000	0.000	0.000	0.080	0.000	0.310	1.8	102	1.20	0.8	-	62
DEC 22	0.002	0.000	0.000	0.070	0.000	0.300	1.7	103	1.20	0.7	-	65
min.	0.000	0.000	0.000	0.030	0.000	0.030	1.5	99	1.00	0.1	-	19
max.	0.013	0.003	0.050	0.220	0.010	0.330	2.1	114	1.30	1.7	-	173
mean	0.003	0.001	0.006	0.101	0.001	0.280	1.7	103	1.17	1.0	-	76
s.dev.	0.003	0.001	0.010	0.031	0.001	0.047	0.1	3	0.08	0.3	-	37

14-A Cont'd.

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 7	0.006	0.001	0.010	0.080	0.000	0.320	1.8	104	1.20	0.5	-	31
JAN 13	0.004	0.001	0.010	0.140	0.001	0.310	1.7	105	1.20	1.0	-	132
JAN 20	0.002	0.000	0.010	0.080	0.001	0.330	1.7	106	1.20	-	-	48
JAN 27	0.008	0.000	0.000	0.060	0.000	0.300	1.8	106	1.20	-	-	55
FEB 3	0.004	0.003	0.000	0.150	0.000	0.310	1.9	105	1.20	0.6	-	57
FEB 10	0.003	0.001	0.030	0.220	0.001	0.320	1.7	105	1.20	0.4	-	53
FEB 17	0.000	0.000	0.000	0.080	0.000	0.310	1.8	105	1.20	0.4	-	43
FEB 24	0.003	0.000	0.000	0.080	0.001	0.320	1.8	104	1.20	0.6	-	74
MAR 3	0.003	0.000	0.000	0.090	0.001	0.320	1.7	104	1.20	0.4	-	69
MAR 11	0.003	0.000	0.000	0.170	0.001	0.310	1.8	104	1.20	0.4	-	55
MAR 18	0.003	0.002	0.000	0.080	0.000	0.310	1.8	104	1.20	1.0	-	80
MAR 24	0.004	0.000	0.000	0.200	0.001	0.290	1.8	101	1.20	0.7	-	74
MAR 31	0.004	0.000	0.020	0.130	0.003	0.300	1.8	104	1.20	0.7	-	54
APR 7	0.006	0.003	0.010	0.170	0.002	0.280	1.8	104	1.20	0.6	-	92
APR 14	0.000	0.000	0.000	0.110	0.001	0.300	1.7	98	1.20	0.6	-	55
APR 21	0.006	0.001	0.000	0.210	0.004	0.260	2.2	98	1.70	-	-	56
APR 28	0.010	0.001	0.010	0.170	0.001	0.310	1.8	103	1.30	-	-	114
MAY 5	0.003	0.000	0.000	0.150	0.001	0.300	1.8	101	1.30	0.4	-	136
MAY 12	0.007	0.001	0.000	0.100	0.005	0.220	2.1	108	1.40	1.0	-	294
MAY 19	0.011	0.003	0.000	0.170	0.004	0.270	1.9	103	1.30	1.2	-	177
MAY 26	0.003	0.002	0.010	0.130	0.001	0.280	1.7	103	1.30	1.6	-	157
JUN 2	0.005	0.002	0.000	0.120	0.003	0.270	1.8	104	1.20	0.9	-	188
JUN 9	0.004	0.000	0.000	0.140	0.001	0.030	1.9	104	1.30	1.0	-	214
JUN 16	0.006	0.005	0.000	0.140	0.003	0.270	1.8	102	1.10	1.2	-	197
JUN 23	0.006	0.004	0.000	0.170	0.004	0.280	1.8	102	1.20	1.5	-	192
JUN 30	0.005	0.002	0.010	0.120	0.004	0.280	1.9	104	1.30	0.9	-	241
JUL 7	0.006	0.003	0.010	0.130	0.003	0.280	1.9	106	1.20	0.8	-	193
JUL 14	0.007	0.003	0.000	0.150	0.003	0.240	1.8	100	1.10	0.4	-	619
JUL 21	0.006	0.002	0.000	0.160	0.005	0.210	2.0	106	1.20	1.1	-	214
JUL 28	0.006	0.004	0.010	0.130	0.002	0.290	1.9	83	1.20	-	-	173
AUG 4	0.007	0.001	0.000	0.140	0.003	0.270	1.9	102	1.20	1.0	0.3	352
AUG 11	0.007	0.004	0.010	0.130	0.002	0.270	1.9	102	1.10	1.5	0.2	168
AUG 18	0.005	0.001	0.000	0.100	0.000	0.310	1.9	108	1.20	0.6	0.1	68
AUG 25	0.006	0.002	0.000	0.180	0.001	0.170	2.0	110	1.00	1.6	0.2	251
AUG 31	0.005	0.002	0.020	0.160	0.002	0.200	1.9	104	1.00	1.5	0.3	159
SEP 8	0.006	0.002	0.010	0.190	0.002	0.230	1.9	100	1.00	0.8	-	123
SEP 15	0.004	0.002	0.020	0.120	0.002	0.250	1.8	103	1.10	0.5	-	96
SEP 22	0.009	0.000	0.030	0.150	0.001	0.230	1.9	106	1.00	1.3	-	143
SEP 29	0.005	0.000	0.000	0.130	0.003	0.250	1.7	100	1.10	-	-	85
OCT 6	0.007	0.001	0.020	0.110	0.000	0.280	1.7	108	1.10	0.7	-	74
OCT 13	0.003	0.001	0.000	0.120	0.001	0.280	1.8	108	1.10	1.0	-	90
OCT 20	0.004	0.000	0.000	0.070	0.003	0.280	1.6	105	1.20	0.8	-	89
OCT 27	0.005	0.002	0.000	0.090	0.001	0.280	1.8	106	1.20	1.0	-	193
NOV 3	0.003	0.001	0.020	0.090	0.008	0.270	1.8	105	1.20	0.8	-	77
NOV 10	0.004	0.002	0.000	0.150	0.006	0.240	2.6	108	1.20	1.0	-	297
NOV 18	0.003	0.001	0.000	0.130	0.001	0.270	1.9	105	1.10	1.1	-	223
NOV 24	0.006	0.001	0.030	0.110	0.004	0.290	1.8	104	1.10	0.5	-	86
DEC 2	0.004	0.004	0.000	0.100	0.000	0.330	1.4	120	1.20	0.7	-	159
DEC 9	0.005	0.004	0.000	0.120	0.001	0.310	1.7	108	1.10	1.3	-	94
DEC 15	0.005	0.000	0.000	0.140	0.001	0.300	1.7	105	1.10	1.0	-	102
DEC 22	0.005	0.000	0.000	0.120	0.000	0.310	1.7	105	1.20	1.8	-	101
DEC 29	0.004	0.000	0.000	0.190	0.000	0.300	1.7	103	1.20	0.5	-	83
min.	0.000	0.000	0.000	0.060	0.000	0.030	1.4	83	1.00	0.4	0.1	31
max.	0.011	0.005	0.030	0.220	0.008	0.330	2.6	120	1.70	1.8	0.3	619
mean	0.005	0.001	0.006	0.132	0.002	0.276	1.8	104	1.19	0.9	0.2	139
s.dev.	0.002	0.001	0.009	0.037	0.002	0.049	0.2	4	0.11	0.4	0.1	101
#samples	52	52	52	52	52	52	52	52	52	46	5	52

14-A Cont'd.

Plant F-14 THUNDER BAY (BARE POINT INTAKE) 1982

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.005	0.000	0.000	0.120	0.000	0.310	1.8	106	1.20	0.9	-	33
JAN 12	0.004	0.001	0.010	0.110	0.003	0.320	1.6	104	1.10	0.6	-	44
JAN 19	0.004	0.001	0.030	0.170	0.002	0.310	1.8	109	1.20	0.6	-	51
JAN 26	0.009	0.001	0.020	0.100	0.001	0.320	1.7	105	1.20	0.6	-	45
FEB 2	0.004	0.001	0.010	0.120	0.001	0.330	1.6	107	1.20	-	-	43
FEB 9	0.004	0.001	0.010	0.120	0.001	0.340	1.6	107	1.10	1.5	-	28
FEB 16	0.005	0.001	0.010	0.100	0.001	0.340	1.7	107	1.20	2.0	-	36
FEB 23	0.004	0.004	0.010	0.110	0.001	0.330	1.1	106	1.20	1.4	-	31
MAR 2	0.008	0.001	0.010	0.140	0.001	0.330	1.6	107	1.20	0.6	-	53
MAR 9	0.004	0.001	0.010	0.090	0.001	0.310	1.6	106	1.10	-	-	41
MAR 16	0.004	0.001	0.020	0.090	0.001	0.320	1.6	105	1.20	1.0	-	40
MAR 23	0.005	0.001	0.010	0.140	0.001	0.320	1.6	105	1.20	0.9	-	50
MAR 30	0.005	0.001	0.010	0.080	0.002	0.320	1.5	104	1.20	1.0	-	28
APR 6	0.010	0.001	0.010	0.120	0.001	0.330	1.7	105	1.20	0.7	-	81
APR 13	0.003	0.001	0.010	0.100	0.001	0.320	1.7	105	1.20	0.8	-	38
APR 20	0.004	0.003	0.010	0.140	0.002	0.340	2.3	106	1.20	-	-	40
APR 27	0.004	0.001	0.010	0.090	0.002	0.310	1.6	102	1.20	1.6	-	53
MAY 4	0.005	0.001	0.010	0.150	0.001	0.310	1.6	102	1.10	1.1	-	65
MAY 11	0.005	0.001	0.030	0.120	0.004	0.290	1.6	99	1.20	1.1	-	38
MAY 18	0.004	0.001	0.020	0.110	0.002	0.310	1.6	102	1.20	0.9	-	58
MAY 25	0.005	0.001	0.010	0.100	0.001	0.290	1.7	103	1.20	0.6	-	82
JUN 1	0.003	0.001	0.010	0.130	0.002	0.280	1.7	103	1.20	0.8	-	116
JUN 8	0.004	0.001	0.010	0.170	0.002	0.270	2.6	105	1.30	0.4	-	171
JUN 15	0.005	0.001	0.010	0.140	0.002	0.280	2.3	106	1.30	1.1	-	105
JUN 22	0.005	0.001	0.010	0.150	0.002	0.280	1.9	105	1.20	0.6	-	127
JUN 29	0.006	0.001	0.010	0.250	0.002	0.260	2.1	107	1.00	1.6	-	115
JUL 6	0.005	0.001	0.010	0.250	0.002	0.240	1.9	104	1.00	1.5	-	113
JUL 12	-	-	-	-	-	-	-	-	-	-	-	-
JUL 20	0.006	0.001	0.010	0.150	0.002	0.260	1.9	103	1.10	1.2	-	41
JUL 27	0.006	0.001	0.010	0.150	0.001	0.290	1.9	104	1.10	0.7	-	44
AUG 3	0.008	0.002	0.010	0.190	0.002	0.240	2.1	106	1.10	1.3	-	122
AUG 10	0.005	0.001	0.010	0.150	0.002	0.300	1.8	103	1.20	1.2	-	87
AUG 18	0.009	0.001	0.010	0.140	0.001	0.270	1.9	104	1.10	0.4	-	71
AUG 25	0.004	0.001	0.010	0.130	0.001	0.260	1.8	104	1.10	0.6	-	90
AUG 31	0.004	0.003	0.020	0.140	0.005	0.280	1.7	104	1.10	0.5	-	90
SEP 7	0.004	0.001	0.010	0.120	0.001	0.270	1.7	103	1.20	0.3	-	79
SEP 14	0.006	0.001	0.010	0.160	0.001	0.280	1.7	104	1.10	0.7	-	113
SEP 21	-	-	-	-	-	-	-	-	-	0.4	-	78
SEP 28	0.004	0.001	0.010	0.150	0.002	0.260	2.1	105	1.10	0.4	-	89
OCT 5	0.007	0.001	0.010	0.150	0.002	0.260	1.7	105	1.10	0.3	-	106
OCT 12	0.009	0.001	0.010	0.130	0.001	0.270	1.7	101	1.20	0.4	-	70
OCT 19	0.005	0.001	0.010	0.150	0.001	0.290	1.7	104	1.10	0.2	-	61
OCT 26	0.007	0.001	0.010	0.150	0.001	0.270	2.3	105	1.20	0.5	-	119
NOV 2	0.005	0.001	0.010	0.130	0.003	0.270	2.3	105	1.20	-	-	92
NOV 9	0.005	0.002	0.010	0.110	0.001	0.310	1.6	98	1.10	0.2	-	54
NOV 15	0.005	0.001	0.010	0.120	0.001	0.300	1.7	102	1.10	0.5	-	75
NOV 22	0.005	0.001	0.010	0.130	0.001	0.280	1.8	104	1.10	0.4	-	51
NOV 29	0.006	0.001	0.010	0.130	0.001	0.300	1.7	103	1.10	0.5	-	57
DEC 6	0.005	0.001	0.010	0.120	0.001	0.280	1.6	102	1.10	0.5	-	50
DEC 13	0.005	0.001	0.010	0.130	0.001	0.280	2.6	105	1.20	0.5	-	40
DEC 20	0.006	0.001	0.010	0.150	0.001	0.270	2.1	106	1.20	-	-	-
DEC 29	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.003	0.000	0.000	0.080	0.000	0.240	1.1	98	1.00	0.2	-	28
max.	0.010	0.004	0.030	0.250	0.005	0.340	2.6	109	1.30	2.0	-	171
mean	0.005	0.001	0.011	0.134	0.002	0.294	1.8	104	1.16	0.8	-	69
s.dev.	0.002	0.001	0.005	0.033	0.001	0.027	0.3	2	0.06	0.4	-	33
#samples	49	49	49	49	49	49	49	49	49	45	0	49

14-A Cont'd

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1983

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.011	0.001	0.010	0.170	0.001	0.300	2.1	106	1.30	0.4	-	-
JAN 11	0.006	0.001	0.010	0.130	0.001	0.300	1.9	105	1.30	0.5	-	-
JAN 19	0.006	0.001	0.010	0.170	0.001	0.310	2.0	107	1.30	-	-	-
JAN 25	0.006	0.001	0.010	0.310	0.001	0.310	2.0	105	1.30	-	-	79
FEB 1	0.004	0.001	0.010	0.280	0.001	0.340	2.1	107	1.30	-	-	-
FEB 8	0.006	0.001	0.010	0.130	0.001	0.320	3.9	106	1.20	0.6	-	-
FEB 15	0.005	0.001	0.010	0.180	0.001	0.310	1.9	107	1.30	0.6	-	-
FEB 22	0.003	0.002	0.010	0.130	0.001	0.320	1.9	106	1.30	0.5	-	68
MAR 1	0.003	0.001	0.010	0.150	0.001	0.320	1.9	103	1.30	-	-	-
MAR 8	0.004	0.001	0.010	0.290	0.001	0.320	1.9	103	1.30	0.5	-	-
MAR 15	0.007	0.001	0.010	0.170	0.001	0.300	1.8	103	1.30	0.4	-	-
MAR 22	0.007	0.001	0.010	0.120	0.001	0.310	1.9	102	1.30	-	-	-
MAR 29	0.005	0.001	0.010	0.170	0.001	0.300	1.8	104	1.30	-	-	78
APR 5	0.007	0.001	0.010	0.130	0.001	0.300	1.8	102	1.20	0.8	-	-
APR 12	0.008	0.001	0.010	0.130	0.001	0.290	1.6	100	1.20	-	-	-
APR 19	0.009	0.001	0.010	0.110	0.003	0.290	1.6	102	1.20	-	-	-
APR 26	0.004	0.001	0.010	0.100	0.001	0.290	1.8	102	1.20	0.7	-	75
MAY 3	0.005	0.001	0.010	0.140	0.001	0.290	1.7	101	1.20	0.8	-	-
MAY 10	0.004	0.001	0.010	0.150	0.001	0.300	1.6	99	1.30	0.6	-	-
MAY 17	0.006	0.001	0.010	0.130	0.001	0.290	1.8	101	1.10	0.8	-	-
MAY 25	0.004	0.002	0.010	0.140	0.003	0.290	1.8	101	1.30	0.1	-	-
MAY 31	0.008	0.006	0.010	0.140	0.001	0.280	1.7	99	1.30	1.5	-	108
JUN 7	0.004	0.002	0.010	0.150	0.001	0.290	1.7	100	1.20	1.2	-	-
JUN 14	0.003	0.001	0.010	0.140	0.001	0.280	1.6	100	1.20	0.9	-	-
JUN 21	-	-	-	-	-	-	-	-	-	0.8	-	-
JUN 28	0.012	0.001	0.010	0.200	0.003	0.270	1.9	99	1.20	0.6	-	138
JUL 5	0.007	0.001	0.010	0.140	0.001	0.300	1.7	99	1.20	0.4	-	-
JUL 12	-	-	-	-	-	-	-	-	-	-	-	-
JUL 19	-	-	-	-	-	-	-	-	-	-	-	-
JUL 26	0.009	0.003	0.030	0.180	0.002	0.280	1.7	98	1.20	0.7	-	214
AUG 2	0.007	0.005	0.010	0.200	0.002	0.360	1.8	100	1.20	1.1	-	-
AUG 9	0.008	0.001	0.010	0.160	0.002	0.230	2.0	101	1.10	1.4	-	-
AUG 16	0.005	0.002	0.010	0.150	0.001	0.270	1.9	100	1.10	1.4	-	-
AUG 23	0.006	0.002	0.010	0.140	0.003	0.290	1.6	100	1.10	1.1	-	-
AUG 30	0.006	0.002	0.010	0.160	0.001	0.260	1.9	100	1.00	1.0	-	242
SEP 6	0.008	0.002	0.010	0.170	0.001	0.280	1.6	99	1.00	1.0	-	-
SEP 13	0.005	0.004	0.010	0.150	0.001	0.270	1.7	100	1.10	0.6	-	-
SEP 20	0.006	0.002	0.010	0.130	0.001	0.310	1.5	100	1.20	0.9	-	-
SEP 27	0.007	0.002	0.010	0.150	0.002	0.280	1.7	101	1.10	1.1	-	283
OCT 4	-	-	-	-	-	-	-	-	-	0.8	-	-
OCT 11	0.008	0.002	0.010	0.160	0.001	0.290	4.5	113	1.20	0.9	-	-
OCT 18	0.010	0.002	0.010	0.130	0.001	0.300	1.7	100	1.10	0.7	-	-
OCT 25	0.007	0.001	0.010	0.180	0.002	0.290	1.7	100	1.20	1.0	-	162
NOV 1	0.007	0.004	0.010	0.140	0.001	0.270	1.8	101	1.10	1.6	-	-
NOV 8	0.009	0.003	0.010	0.140	0.001	0.280	1.7	101	1.10	1.1	-	-
NOV 15	-	-	0.010	0.150	0.001	0.280	1.7	101	1.10	1.0	-	-
NOV 22	0.005	0.004	0.010	0.140	0.001	0.300	1.5	99	1.10	0.8	-	-
NOV 29	0.005	0.003	0.010	0.160	0.001	0.300	1.6	99	1.10	1.0	-	82
DEC 6	0.004	0.003	0.010	0.120	0.001	0.280	1.7	100	1.10	1.6	-	-
DEC 13	0.005	0.004	0.030	0.130	0.001	0.300	1.5	99	1.10	1.4	-	-
DEC 20	0.005	0.004	0.030	0.100	0.001	0.300	1.5	99	1.10	1.0	-	75
DEC 27	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.003	0.001	0.010	0.100	0.001	0.230	1.5	98	1.00	0.1	-	68
max.	0.012	0.006	0.030	0.310	0.003	0.360	4.5	113	1.30	1.6	-	283
mean	0.006	0.002	0.011	0.156	0.001	0.294	1.9	102	1.19	0.9	-	134
s.dev.	0.002	0.001	0.005	0.043	0.001	0.021	0.5	3	0.09	0.3	-	75
#samples	46	46	47	47	47	47	47	47	47	41	0	12

14-A Cont'd

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1984

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN 4	0.012	0.004	0.010	0.140	0.001	0.330	1.7	102	1.20	0.9	-	-
JAN 10	0.007	0.002	0.010	0.140	0.001	0.310	1.5	102	1.20	1.4	-	-
JAN 17	0.006	0.002	0.010	0.130	0.001	0.320	1.8	105	1.20	1.6	-	-
JAN 24	0.005	0.002	0.010	0.110	0.001	0.310	1.7	102	1.10	1.8	-	-
JAN 31	0.007	0.002	0.010	0.130	0.001	0.320	1.8	105	1.20	1.4	-	48
FEB 7	0.007	0.003	0.010	0.140	0.001	0.320	1.8	105	1.20	1.0	-	-
FEB 14	0.006	0.001	0.010	0.140	0.001	0.310	1.8	104	1.20	1.0	-	-
FEB 21	0.006	0.001	0.010	0.140	0.001	0.320	1.8	105	1.20	1.0	0.3	-
FEB 29	0.005	0.001	0.010	0.180	0.001	0.330	1.5	102	1.20	1.9	0.3	86
MAR 6	0.009	0.001	0.010	0.150	0.001	0.320	1.6	103	1.20	4.2	0.7	-
MAR 13	0.003	0.001	0.010	0.150	0.001	0.320	1.6	102	1.20	0.7	0.6	-
MAR 20	0.005	0.001	0.010	0.130	0.001	0.310	1.6	101	1.20	0.5	0.4	-
MAR 27	0.005	0.001	0.010	0.130	0.001	0.310	1.7	102	1.20	0.4	0.2	49
APR 3	0.005	0.001	0.010	0.150	0.001	0.320	1.6	101	1.20	0.3	-	-
APR 10	0.012	0.001	0.010	0.120	0.001	0.310	1.6	101	1.20	0.4	-	-
APR 17	0.006	0.001	0.010	0.130	0.001	0.310	1.6	99	1.20	0.5	-	-
APR 24	0.005	0.001	0.010	0.130	0.001	0.310	1.7	100	1.20	0.7	-	65
MAY 1	0.005	0.001	0.010	0.140	0.001	0.310	1.7	100	1.20	0.7	-	-
MAY 8	0.004	0.001	0.010	0.150	0.001	0.300	1.7	100	1.20	0.6	-	-
MAY 15	0.007	0.002	0.010	0.150	0.001	0.310	1.8	99	1.20	0.7	-	-
MAY 22	0.006	0.001	0.010	0.140	0.003	0.300	1.6	99	1.20	0.7	-	-
MAY 29	0.009	0.001	0.010	0.160	0.001	0.290	1.7	99	1.20	1.0	-	91
JUN 6	0.006	0.001	0.010	0.160	0.002	0.280	1.9	100	1.20	0.8	-	124
JUN 11	0.008	0.001	0.010	0.210	0.001	0.300	1.7	99	1.20	1.2	-	141
JUN 18	-	-	-	-	-	-	-	-	-	-	-	-
JUL 25	-	-	-	-	-	-	-	-	-	-	-	-
JUL 2	-	-	-	-	-	-	-	-	-	-	-	-
JUL 9	-	-	-	-	-	-	-	-	-	-	-	-
JUL 16	-	-	-	-	-	-	-	-	-	-	-	-
JUL 24	0.005	0.003	0.010	0.130	0.002	0.290	1.6	99	1.20	1.0	-	149
JUL 31	0.005	0.001	0.070	0.160	0.004	0.280	2.9	99	1.20	1.5	-	198
AUG 7	0.004	0.001	0.010	0.170	0.002	0.250	1.9	103	1.30	1.4	-	-
AUG 14	0.007	0.001	0.010	0.140	0.003	0.280	1.9	104	1.20	0.7	-	-
AUG 21	0.005	0.003	0.010	0.150	0.002	0.260	1.7	100	1.10	-	-	-
AUG 29	0.004	0.001	0.010	0.190	0.002	0.260	1.7	100	1.10	1.0	-	445
SEP 7	0.007	0.001	0.010	0.140	0.002	0.270	1.6	102	1.10	-	-	-
SEP 11	0.007	0.001	0.010	0.160	0.002	0.260	1.8	97	1.10	-	-	-
SEP 18	0.006	0.001	0.010	0.160	0.002	0.270	1.7	101	1.10	-	-	-
SEP 25	0.007	0.001	0.010	0.120	0.002	0.280	1.6	99	1.10	0.4	-	91
OCT 2	0.005	0.002	0.010	0.160	0.002	0.310	1.6	98	1.10	-	-	-
OCT 9	0.004	0.002	0.010	0.150	0.002	0.290	1.6	99	1.10	0.9	0.5	-
OCT 16	0.006	0.001	0.010	0.140	0.002	0.290	1.6	100	1.10	1.0	0.4	-
OCT 23	0.005	0.001	0.010	0.270	0.001	0.310	1.6	98	1.10	0.8	0.6	-
OCT 30	0.006	0.002	0.010	0.160	0.002	0.290	5.0	114	1.20	0.8	0.4	55
NOV 6	0.005	0.001	0.010	0.130	0.002	0.290	2.2	103	1.10	0.9	0.4	-
NOV 13	0.004	0.001	0.010	0.120	0.002	0.300	1.8	101	1.10	0.6	0.2	-
NOV 20	0.003	0.001	0.010	0.130	0.001	0.300	1.8	99	1.10	0.4	0.2	-
NOV 27	0.003	0.001	0.010	0.120	0.001	0.310	1.7	101	1.10	0.9	0.4	63
DEC 4	-	-	-	-	-	-	-	-	-	0.7	0.4	-
DEC 11	-	-	-	-	-	-	-	-	-	0.7	0.4	-
DEC 18	-	-	-	-	-	-	-	-	-	0.6	0.4	27
DEC 25	-	-	-	-	-	-	-	-	-	-	-	-
min.	0.003	0.001	0.010	0.110	0.001	0.250	1.5	97	1.10	0.3	0.2	27
max.	0.012	0.004	0.070	0.270	0.004	0.330	5.0	114	1.30	4.2	0.7	445
mean	0.006	0.001	0.011	0.148	0.002	0.295	1.8	101	1.17	1.0	0.4	117
s.dev.	0.002	0.001	0.009	0.027	0.001	0.020	0.5	3	0.05	0.6	0.1	106
#samples	43	43	43	43	43	43	43	43	43	41	17	14

14-A Cont'd

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1979

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.070	0.000	0.200	1.0	97	0.97	0.9	0.7	27
max.	0.009	0.002	0.010	0.410	0.004	0.300	3.0	104	1.20	1.4	1.2	282
mean	0.004	0.001	0.004	0.125	0.002	0.269	2.2	102	1.12	1.0	1.0	128
s.dev.	0.002	0.001	0.005	0.067	0.001	0.027	0.5	2	0.07	0.3	0.2	69
#samples	22	22	22	22	22	22	22	22	22	4	4	23

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1980

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.030	0.000	0.030	1.5	99	1.00	0.1	-	19
max.	0.013	0.003	0.050	0.220	0.010	0.330	2.1	114	1.30	1.7	-	173
mean	0.003	0.001	0.006	0.101	0.001	0.280	1.7	103	1.17	1.0	-	76
s.dev.	0.003	0.001	0.010	0.031	0.001	0.047	0.1	3	0.08	0.3	-	37
#samples	51	51	51	51	51	51	51	51	51	31	0	38

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1981

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.000	0.000	0.000	0.060	0.000	0.030	1.4	83	1.00	0.4	0.1	31
max.	0.011	0.005	0.030	0.220	0.008	0.330	2.6	120	1.70	1.8	0.3	619
mean	0.005	0.001	0.006	0.132	0.002	0.276	1.8	104	1.19	0.9	0.2	139
s.dev.	0.002	0.001	0.009	0.037	0.002	0.049	0.2	4	0.11	0.4	0.1	101
#samples	52	52	52	52	52	52	52	52	52	46	5	52

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1982

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.003	0.000	0.000	0.080	0.000	0.240	1.1	98	1.00	0.2	-	28
max.	0.010	0.004	0.030	0.250	0.005	0.340	2.6	109	1.30	2.0	-	171
mean	0.005	0.001	0.011	0.134	0.002	0.294	1.8	104	1.16	0.8	-	69
s.dev.	0.002	0.001	0.005	0.033	0.001	0.027	0.3	2	0.06	0.4	-	33
#samples	49	49	49	49	49	49	49	49	49	45	0	49

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1983

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.003	0.001	0.010	0.100	0.001	0.230	1.5	98	1.00	0.1	-	68
max.	0.012	0.006	0.030	0.310	0.003	0.360	4.5	113	1.30	1.6	-	283
mean	0.006	0.002	0.011	0.156	0.001	0.294	1.9	102	1.19	0.9	-	134
s.dev.	0.002	0.001	0.005	0.043	0.001	0.021	0.5	3	0.09	0.3	-	75
#samples	46	46	47	47	47	47	47	47	47	41	0	12

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1984

	Tot.P	f.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
min.	0.003	0.001	0.010	0.110	0.001	0.250	1.5	97	1.10	0.3	0.2	27
max.	0.012	0.004	0.070	0.270	0.004	0.330	5.0	114	1.30	4.2	0.7	445
mean	0.006	0.001	0.011	0.148	0.002	0.299	1.8	101	1.17	1.0	0.4	117
s.dev.	0.002	0.001	0.009	0.027	0.001	0.020	0.5	3	0.05	0.6	0.1	106
#samples	43	43	43	43	43	43	43	43	43	41	17	14

14-B Cont'd

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1979

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
JAN	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
FEB	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
MAR	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
APR	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
MAY	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
JUN	No	0	0	0	0	0	0	0	0	0	0	0	0
	m	-	-	-	-	-	-	-	-	-	-	-	-
	SD	-	-	-	-	-	-	-	-	-	-	-	-
JUL	No	3	3	3	3	3	3	3	3	3	3	3	3
	m	0.005	0.001	0.010	0.117	0.003	0.223	2.7	101	1.17	1.07	1.0	163
	SD	0.001	0.000	0.000	0.042	0.001	0.025	0.6	1	0.06	0.29	0.3	74
AUG	No	4	4	4	4	4	4	4	4	4	1	1	4
	m	0.005	0.001	0.005	0.125	0.003	0.265	2.8	102	1.10	0.90	0.9	222
	SD	0.002	0.001	0.006	0.013	0.000	0.017	0.5	1	0.08	-	-	60
SEP	No	4	4	4	4	4	4	4	4	4	0	0	4
	m	0.003	0.001	0.003	0.170	0.001	0.263	2.3	103	1.10	-	-	155
	SD	0.001	0.001	0.005	0.161	0.001	0.015	0.5	1	0.00	-	-	25
OCT	No	5	5	5	5	5	5	5	5	5	0	0	5
	m	0.002	0.001	0.002	0.114	0.001	0.274	2.0	101	1.07	-	-	98
	SD	0.003	0.000	0.004	0.026	0.000	0.011	0.0	3	0.10	-	-	19
NOV	No	3	3	3	3	3	3	3	3	3	0	0	4
	m	0.002	0.002	0.003	0.107	0.001	0.290	2.0	103	1.10	-	-	81
	SD	0.002	0.001	0.006	0.006	0.001	0.017	0.0	1	0.00	-	-	20
DEC	No	3	3	3	3	3	3	3	3	3	0	0	3
	m	0.005	0.000	0.000	0.110	0.000	0.300	1.7	101	1.20	-	-	42
	SD	0.004	0.001	0.000	0.017	0.001	0.000	0.6	1	0.00	-	-	17

Appendix 14-Part C

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1980

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	5	5	5	5	5	5	5	5	5	0	0	5
JAN	m	0.002	0.001	0.000	0.094	0.001	0.312	1.7	103	1.22	-	-	46
	SD	0.003	0.000	0.000	0.030	0.000	0.011	0.2	5	0.04	-	-	23
	No	4	4	4	4	4	4	4	4	4	2	0	4
FEB	m	0.007	0.002	0.000	0.098	0.001	0.313	1.8	106	1.25	1.10	-	72
	SD	0.004	0.001	0.000	0.010	0.001	0.005	0.1	2	0.06	0.28	-	18
	No	4	4	4	4	4	4	4	4	4	3	0	4
MAR	m	0.002	0.001	0.000	0.070	0.001	0.320	1.7	104	1.23	0.70	-	49
	SD	0.002	0.001	0.000	0.029	0.001	0.000	0.1	1	0.05	0.10	-	21
	No	5	5	5	5	5	5	5	5	5	3	0	5
APR	m	0.003	0.001	0.010	0.134	0.001	0.314	1.9	102	1.20	1.13	-	55
	SD	0.003	0.001	0.022	0.059	0.001	0.009	0.2	2	0.00	0.31	-	31
	No	3	3	3	3	3	3	3	3	3	2	0	4
MAY	m	0.000	0.001	0.007	0.100	0.002	0.193	1.7	101	1.23	1.05	-	62
	SD	0.000	0.001	0.006	0.020	0.001	0.142	0.1	1	0.06	0.21	-	7
	No	4	4	4	4	4	4	4	4	4	2	0	2
JUN	m	0.002	0.000	0.000	0.105	0.002	0.288	1.7	101	1.18	0.65	-	116
	SD	0.002	0.000	0.000	0.013	0.001	0.029	0.1	2	0.05	0.78	-	71
	No	5	5	5	5	5	5	5	5	5	4	0	0
JUL	m	0.002	0.000	0.004	0.094	0.002	0.250	1.9	102	1.14	1.33	-	-
	SD	0.004	0.000	0.005	0.030	0.000	0.007	0.1	0	0.05	0.30	-	-
	No	4	4	4	4	4	4	4	4	4	3	0	0
AUG	m	0.000	0.000	0.013	0.088	0.002	0.235	1.9	102	1.05	1.13	-	-
	SD	0.000	0.001	0.010	0.022	0.001	0.031	0.1	1	0.10	0.12	-	-
	No	5	5	5	5	5	5	5	5	5	2	0	2
SEP	m	0.003	0.000	0.016	0.100	0.003	0.268	1.6	104	1.14	0.75	-	76
	SD	0.003	0.000	0.011	0.020	0.004	0.026	0.1	6	0.09	0.07	-	16
	No	4	4	4	4	4	4	4	4	4	3	0	4
OCT	m	0.003	0.001	0.005	0.118	0.002	0.275	1.7	101	1.10	1.17	-	141
	SD	0.003	0.001	0.010	0.031	0.001	0.013	0.1	2	0.00	0.21	-	26
	No	4	4	4	4	4	4	4	4	4	4	0	4
NOV	m	0.006	0.001	0.013	0.118	0.001	0.280	1.7	102	1.13	0.93	-	102
	SD	0.003	0.002	0.010	0.028	0.001	0.008	0.1	1	0.05	0.45	-	24
	No	4	4	4	4	4	4	4	4	4	3	0	4
DEC	m	0.001	0.000	0.003	0.085	0.000	0.285	1.8	103	1.20	0.73	-	76
	SD	0.001	0.000	0.005	0.013	0.001	0.024	0.1	1	0.00	0.06	-	15

14-C Cont'd.

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1981

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	No	4	4	4	4	4	4	4	4	4	2	0	4
JAN	m	0.005	0.001	0.008	0.090	0.001	0.315	1.8	105	1.20	0.75	-	67
	SD	0.003	0.001	0.005	0.035	0.001	0.013	0.1	1	0.00	0.35	-	45
	No	4	4	4	4	4	4	4	4	4	4	0	4
FEB	m	0.003	0.001	0.008	0.133	0.001	0.315	1.8	105	1.20	0.50	-	57
	SD	0.002	0.001	0.015	0.067	0.001	0.006	0.1	1	0.00	0.12	-	13
	No	5	5	5	5	5	5	5	5	5	5	0	5
MAR	m	0.003	0.000	0.004	0.134	0.001	0.306	1.8	103	1.20	0.64	-	66
	SD	0.001	0.001	0.009	0.051	0.001	0.011	0.0	1	0.00	0.25	-	12
	No	4	4	4	4	4	4	4	4	4	2	0	4
APR	m	0.006	0.001	0.005	0.165	0.002	0.288	1.9	101	1.35	0.60	-	79
	SD	0.004	0.001	0.006	0.041	0.001	0.022	0.2	3	0.24	0.00	-	29
	No	4	4	4	4	4	4	4	4	4	4	0	4
MAY	m	0.006	0.002	0.003	0.138	0.003	0.268	1.9	104	1.33	1.05	-	191
	SD	0.004	0.001	0.005	0.030	0.002	0.034	0.2	3	0.05	0.50	-	71
	No	5	5	5	5	5	5	5	5	5	5	0	5
JUN	m	0.005	0.003	0.002	0.138	0.003	0.226	1.8	103	1.22	1.10	-	206
	SD	0.001	0.002	0.004	0.020	0.001	0.110	0.1	1	0.08	0.25	-	22
	No	4	4	4	4	4	4	4	4	4	3	0	4
JUL	m	0.006	0.003	0.005	0.143	0.003	0.255	1.9	99	1.18	0.77	-	300
	SD	0.001	0.001	0.006	0.015	0.001	0.037	0.1	11	0.05	0.35	-	213
	No	5	5	5	5	5	5	5	5	5	5	5	5
AUG	m	0.006	0.002	0.006	0.142	0.002	0.244	1.9	105	1.10	1.24	0.2	200
	SD	0.001	0.001	0.009	0.030	0.001	0.057	0.0	4	0.10	0.43	0.1	107
	No	4	4	4	4	4	4	4	4	4	3	0	4
SEP	m	0.006	0.001	0.015	0.148	0.002	0.240	1.8	102	1.05	0.87	-	112
	SD	0.002	0.001	0.013	0.031	0.001	0.012	0.1	3	0.06	0.40	-	26
	No	4	4	4	4	4	4	4	4	4	4	0	4
OCT	m	0.005	0.001	0.005	0.098	0.001	0.280	1.7	107	1.15	0.88	-	112
	SD	0.002	0.001	0.010	0.022	0.001	0.000	0.1	2	0.06	0.15	-	55
	No	4	4	4	4	4	4	4	4	4	4	0	4
NOV	m	0.004	0.001	0.013	0.120	0.005	0.268	2.0	106	1.15	0.85	-	171
	SD	0.001	0.001	0.015	0.026	0.003	0.021	0.4	2	0.06	0.26	-	107
	No	5	5	5	5	5	5	5	5	5	5	0	5
DEC	m	0.005	0.002	0.000	0.134	0.000	0.310	1.6	108	1.16	1.06	-	108
	SD	0.001	0.002	0.000	0.034	0.001	0.012	0.1	7	0.05	0.51	-	30

14-C Cont'd.

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1982

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	4	4	4	0	4
JAN	m	0.006	0.001	0.015	0.125	0.002	0.315	1.7	106	1.18	0.68	-	43
	SD	0.002	0.001	0.013	0.031	0.001	0.006	0.1	2	0.05	0.15	-	8
	NO	4	4	4	4	4	4	4	4	4	3	0	4
FEB	m	0.004	0.002	0.010	0.113	0.001	0.335	1.5	107	1.18	1.63	-	35
	SD	0.001	0.002	0.000	0.010	0.000	0.006	0.3	1	0.05	0.32	-	7
	NO	5	5	5	5	5	5	5	5	5	4	0	5
MAR	m	0.005	0.001	0.012	0.108	0.001	0.320	1.6	105	1.18	0.88	-	42
	SD	0.002	0.000	0.004	0.029	0.000	0.007	0.0	1	0.04	0.19	-	10
	NO	4	4	4	4	4	4	4	4	4	3	0	4
APR	m	0.005	0.002	0.010	0.113	0.002	0.325	1.8	105	1.20	1.03	-	53
	SD	0.003	0.001	0.000	0.022	0.001	0.013	0.3	2	0.00	0.49	-	20
	NO	4	4	4	4	4	4	4	4	4	4	0	4
MAY	m	0.005	0.001	0.018	0.120	0.002	0.300	1.6	102	1.18	0.93	-	61
	SD	0.001	0.000	0.010	0.022	0.001	0.012	0.1	2	0.05	0.24	-	18
	NO	5	5	5	5	5	5	5	5	5	5	0	5
JUN	m	0.005	0.001	0.010	0.168	0.002	0.274	2.1	105	1.20	0.90	-	127
	SD	0.001	0.000	0.000	0.048	0.000	0.009	0.3	1	0.12	0.47	-	26
	NO	3	3	3	3	3	3	3	3	3	3	0	3
JUL	m	0.006	0.001	0.010	0.183	0.002	0.263	1.9	104	1.07	1.13	-	66
	SD	0.001	0.000	0.000	0.058	0.001	0.025	0.0	1	0.06	0.40	-	41
	NO	5	5	5	5	5	5	5	5	5	5	0	5
AUG	m	0.006	0.002	0.012	0.150	0.002	0.270	1.9	104	1.12	0.80	-	92
	SD	0.002	0.001	0.004	0.023	0.002	0.022	0.2	1	0.04	0.42	-	19
	NO	3	3	3	3	3	3	3	3	3	4	0	4
SEP	m	0.005	0.001	0.010	0.143	0.001	0.270	1.8	104	1.13	0.45	-	90
	SD	0.001	0.000	0.000	0.021	0.001	0.010	0.2	1	0.06	0.17	-	16
	NO	4	4	4	4	4	4	4	4	4	4	0	4
OCT	m	0.007	0.001	0.010	0.145	0.001	0.273	1.9	104	1.15	0.35	-	89
	SD	0.002	0.000	0.000	0.010	0.001	0.013	0.3	2	0.06	0.13	-	28
	NO	5	5	5	5	5	5	5	5	5	4	0	5
NOV	m	0.005	0.001	0.010	0.124	0.001	0.292	1.8	102	1.12	0.40	-	66
	SD	0.000	0.000	0.000	0.009	0.001	0.016	0.3	3	0.04	0.14	-	17
	NO	3	3	3	3	3	3	3	3	3	2	0	2
DEC	m	0.005	0.001	0.010	0.133	0.001	0.277	2.1	104	1.17	0.50	-	45
	SD	0.001	0.000	0.000	0.015	0.000	0.006	0.5	2	0.06	0.00	-	7

14-C Cont'd

Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1983

		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	4	4	4	4	4	4	4	4	4	2	0	1
JAN	m	0.007	0.001	0.010	0.195	0.001	0.305	2.0	106	1.30	0.45	-	79
	SD	0.003	0.000	0.000	0.079	0.000	0.006	0.1	1	0.00	0.07	-	-
	NO	4	4	4	4	4	4	4	4	4	3	0	1
FEB	m	0.005	0.001	0.010	0.180	0.001	0.323	2.5	107	1.28	0.57	-	68
	SD	0.001	0.001	0.000	0.071	0.000	0.013	1.0	1	0.05	0.06	-	-
	NO	5	5	5	5	5	5	5	5	5	2	0	1
MAR	m	0.005	0.001	0.010	0.180	0.001	0.310	1.9	103	1.30	0.45	-	78
	SD	0.002	0.000	0.000	0.065	0.000	0.010	0.1	1	0.00	0.07	-	-
	NO	4	4	4	4	4	4	4	4	4	2	0	1
APR	m	0.007	0.001	0.010	0.118	0.002	0.293	1.7	102	1.20	0.75	-	75
	SD	0.002	0.000	0.000	0.015	0.001	0.005	0.1	1	0.00	0.07	-	-
	NO	5	5	5	5	5	5	5	5	5	5	0	1
MAY	m	0.005	0.002	0.010	0.140	0.001	0.290	1.7	100	1.24	0.76	-	108
	SD	0.002	0.002	0.000	0.007	0.001	0.007	0.1	1	0.09	0.50	-	-
	NO	3	3	3	3	3	3	3	3	3	4	0	1
JUN	m	0.006	0.001	0.010	0.163	0.002	0.280	1.7	100	1.20	0.88	-	138
	SD	0.005	0.001	0.000	0.032	0.001	0.010	0.2	1	0.00	0.25	-	-
	NO	2	2	2	2	2	2	2	2	2	2	0	1
JUL	m	0.008	0.002	0.020	0.160	0.002	0.290	1.7	99	1.20	0.55	-	214
	SD	0.001	0.001	0.014	0.028	0.001	0.014	0.0	1	0.00	0.21	-	-
	NO	5	5	5	5	5	5	5	5	5	5	0	1
AUG	m	0.006	0.002	0.010	0.162	0.002	0.282	1.8	100	1.10	1.20	-	242
	SD	0.001	0.002	0.000	0.023	0.001	0.049	0.2	0	0.07	0.19	-	-
	NO	4	4	4	4	4	4	4	4	4	4	0	1
SEP	m	0.007	0.003	0.010	0.150	0.001	0.285	1.6	100	1.10	0.90	-	283
	SD	0.001	0.001	0.000	0.016	0.001	0.017	0.1	1	0.08	0.22	-	-
	NO	3	3	3	3	3	3	3	3	3	4	0	1
OCT	m	0.008	0.002	0.010	0.157	0.001	0.293	2.6	104	1.17	0.85	-	162
	SD	0.002	0.001	0.000	0.025	0.001	0.006	1.6	8	0.06	0.13	-	-
	NO	4	4	5	5	5	5	5	5	5	5	0	1
NOV	m	0.007	0.004	0.010	0.146	0.001	0.286	1.7	100	1.10	1.10	-	82
	SD	0.002	0.001	0.000	0.009	0.000	0.013	0.1	1	0.00	0.30	-	-
	NO	3	3	3	3	3	3	3	3	3	3	0	1
DEC	m	0.005	0.004	0.023	0.117	0.001	0.293	1.6	99	1.10	1.33	-	75
	SD	0.001	0.001	0.012	0.015	0.000	0.012	0.1	1	0.00	0.31	-	-

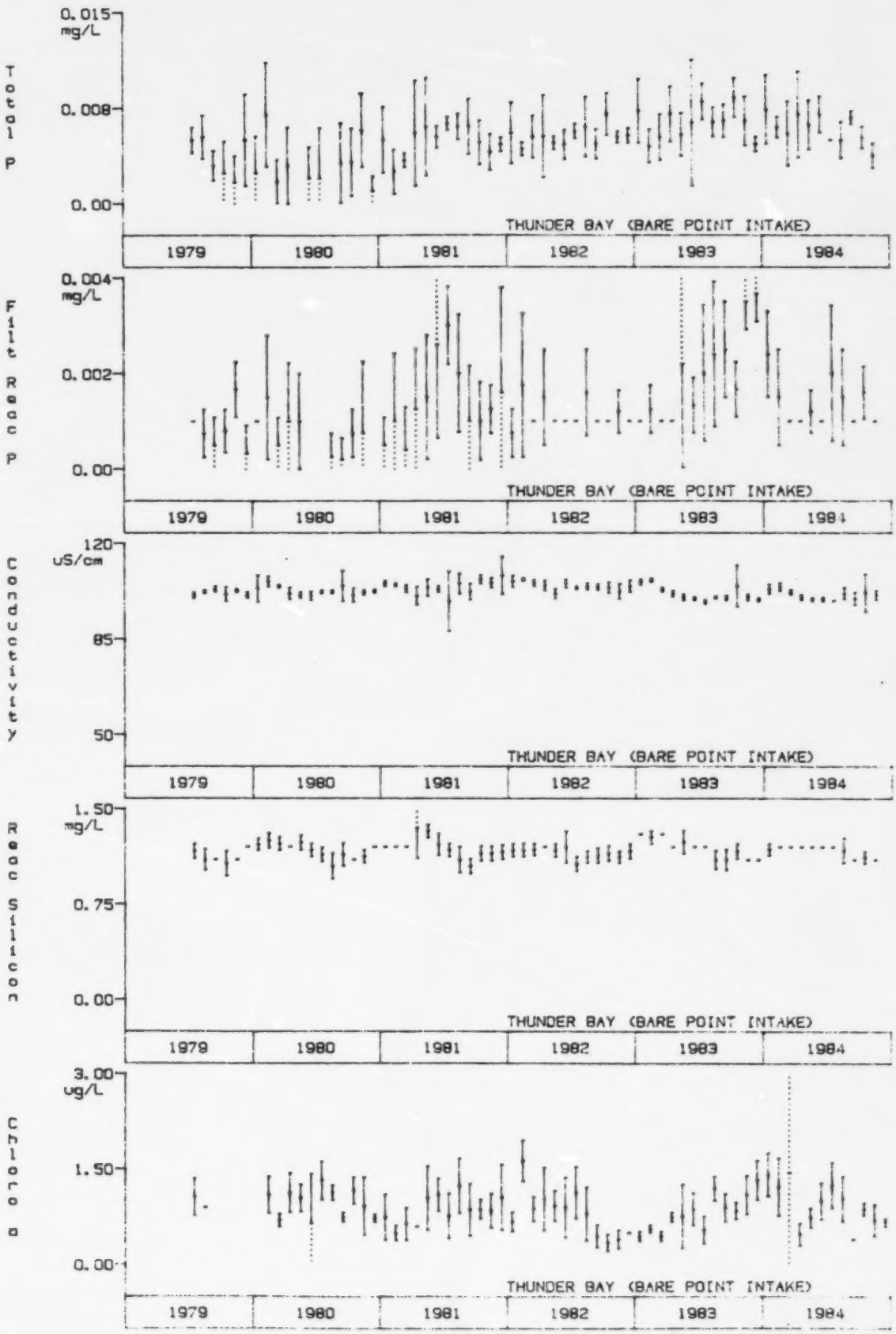
14-C Cont'd

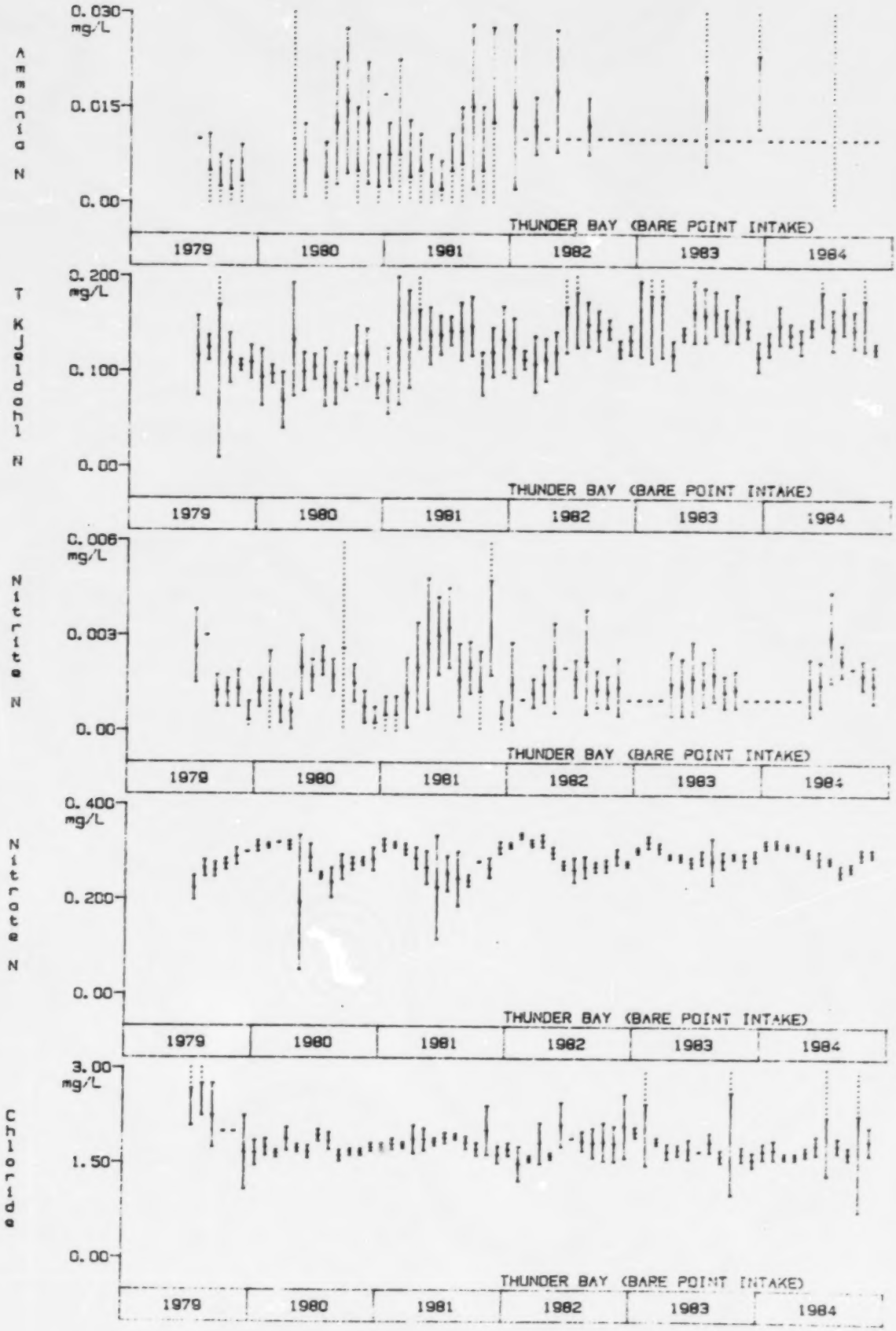
Plant # 14 - THUNDER BAY (BARE POINT INTAKE) 1984

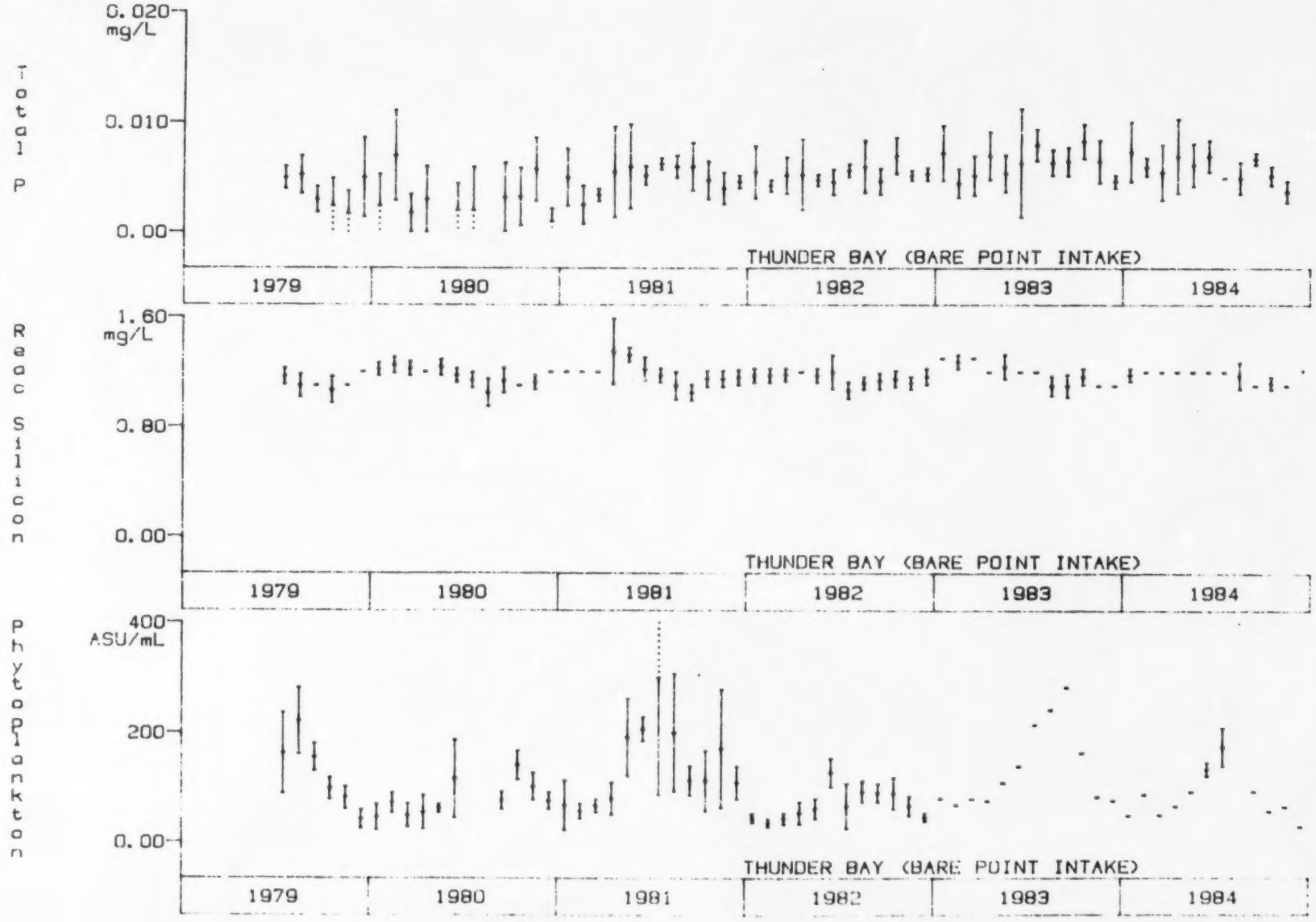
		Tot.P	F.r.P	NH3	T.Kjl	NO2	NO3	Cl	Cond	R.Sil	Chl a	Chl b	Phyto
	NO	5	5	5	5	5	5	5	5	5	5	0	1
JAN	m	0.007	0.002	0.010	0.130	0.001	0.318	1.7	103	1.18	1.42	-	48
	SD	0.003	0.001	0.000	0.012	0.000	0.008	0.1	2	0.04	0.33	-	-
	NO	4	4	4	4	4	4	4	4	4	4	2	1
FEB	m	0.006	0.002	0.010	0.150	0.001	0.320	1.7	104	1.20	1.23	0.3	86
	SD	0.001	0.001	0.000	0.020	0.000	0.008	0.2	1	0.00	0.45	0.0	-
	NO	4	4	4	4	4	4	4	4	4	4	4	1
MAR	m	0.006	0.001	0.010	0.140	0.001	0.315	1.6	102	1.20	1.45	0.5	49
	SD	0.003	0.000	0.000	0.012	0.000	0.006	0.1	1	0.00	1.84	0.2	-
	NO	4	4	4	4	4	4	4	4	4	4	0	1
APR	m	0.007	0.001	0.010	0.133	0.001	0.313	1.6	100	1.20	0.48	-	65
	SD	0.003	0.000	0.000	0.013	0.000	0.005	0.1	1	0.00	0.17	-	-
	NO	5	5	5	5	5	5	5	5	5	5	0	1
MAY	m	0.006	0.001	0.010	0.148	0.001	0.302	1.7	99	1.20	0.74	-	91
	SD	0.002	0.000	0.000	0.008	0.001	0.008	0.1	1	0.00	0.15	-	-
	NO	2	2	2	2	2	2	2	2	2	2	0	2
JUN	m	0.007	0.001	0.010	0.185	0.002	0.290	1.8	100	1.20	1.00	-	133
	SD	0.001	0.000	0.000	0.035	0.001	0.014	0.1	1	0.00	0.28	-	12
	NO	2	2	2	2	2	2	2	2	2	2	0	2
JUL	m	0.005	0.002	0.040	0.145	0.003	0.285	2.3	99	1.20	1.25	-	174
	SD	0.000	0.001	0.042	0.021	0.001	0.007	0.9	0	0.00	0.35	-	35
	NO	4	4	4	4	4	4	4	4	4	3	0	1
AUG	m	0.005	0.002	0.010	0.163	0.002	0.263	1.8	102	1.18	1.03	-	445
	SD	0.001	0.001	0.000	0.022	0.001	0.013	0.1	2	0.10	0.35	-	-
	NO	4	4	4	4	4	4	4	4	4	1	0	1
SEP	m	0.007	0.001	0.010	0.145	0.002	0.270	1.7	100	1.10	0.40	-	91
	SD	0.001	0.000	0.000	0.019	0.000	0.008	0.1	2	0.00	-	-	-
	NO	5	5	5	5	5	5	5	5	5	4	4	1
OCT	m	0.005	0.002	0.010	0.176	0.002	0.298	2.3	102	1.12	0.88	0.5	55
	SD	0.001	0.001	0.000	0.053	0.000	0.011	1.5	7	0.04	0.10	0.1	-
	NO	4	4	4	4	4	4	4	4	4	4	4	1
NOV	m	0.004	0.001	0.010	0.125	0.002	0.300	1.9	101	1.10	0.70	0.3	63
	SD	0.001	0.000	0.000	0.006	0.001	0.008	0.2	2	0.00	0.24	0.1	-
	NO	0	0	0	0	0	0	0	0	0	3	3	1
DEC	m	-	-	-	-	-	-	-	-	-	0.67	0.4	27
	SD	-	-	-	-	-	-	-	-	-	0.06	0.0	-

14-C Cont'd

Appendix 14 - Part D




Ammonia N
0.030 mg/L
0.015
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
TKN
0.200 mg/L
0.100
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
Nitrite N
0.006 mg/L
0.003
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
Nitrate N
0.400 mg/L
0.200
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
Chloride
3.00 mg/L
1.50
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984


Total P
0.020
mg/L
0.010
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
Reac Silicon
1.60
mg/L
0.80
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984
Phytoplankton
400
ASU/mL
200
0.00
THUNDER BAY (BARE POINT INTAKE)
1979
1980
1981
1982
1983
1984